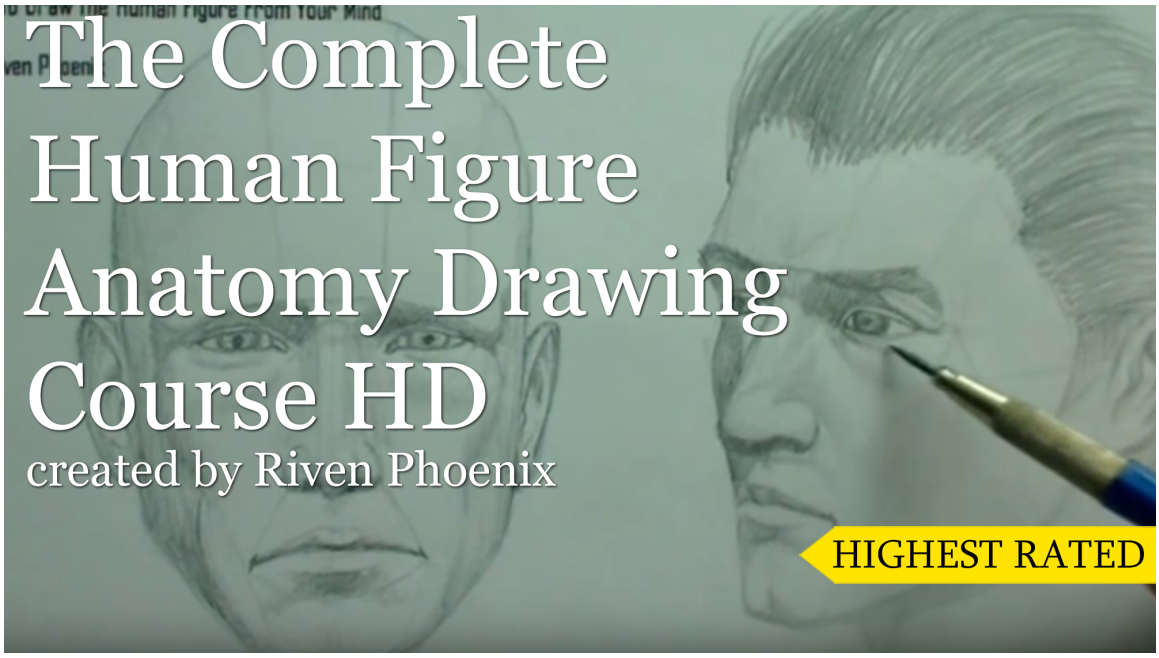

The Structure of Man

Learn to Draw the Human Figure From Your Mind with Riven Phoenix

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Figure Drawing Lesson 025 - Understanding Basic Design of Scapula and Formulas

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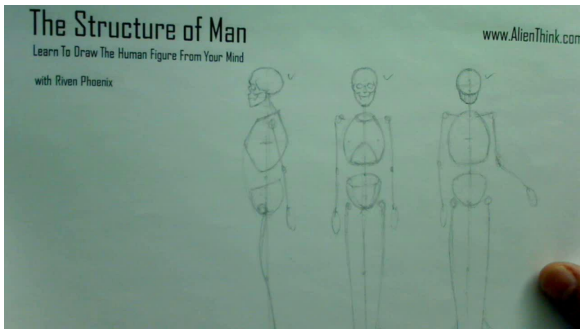
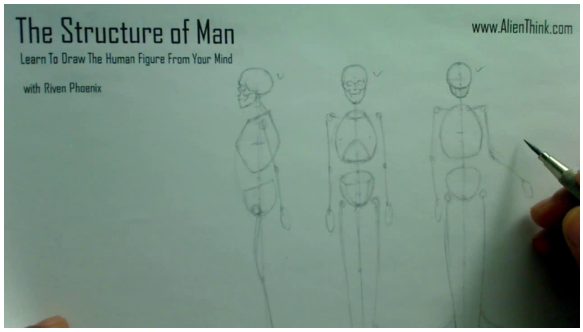
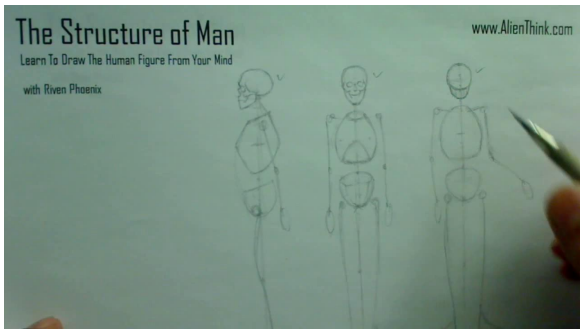
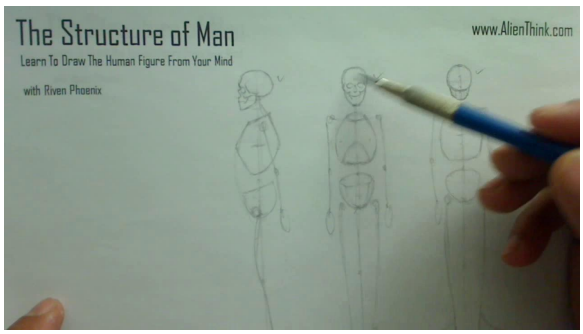
1		Hey guys, my name is Riven Phoenix and welcome to the structure of Man Learn to Draw the
2		human figure from your mind training course.
3		So in the previous lesson, we went through this milestone step where we were able to prove
4		on paper that we could draw the skull from memory and the chance cavity from memory,

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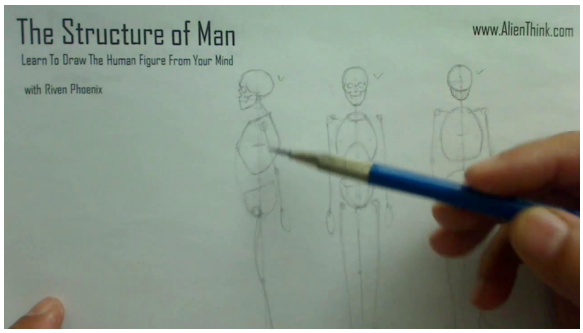
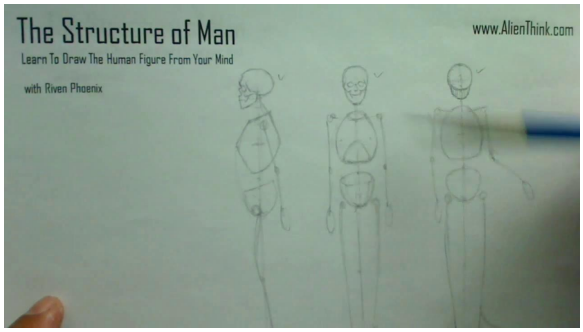
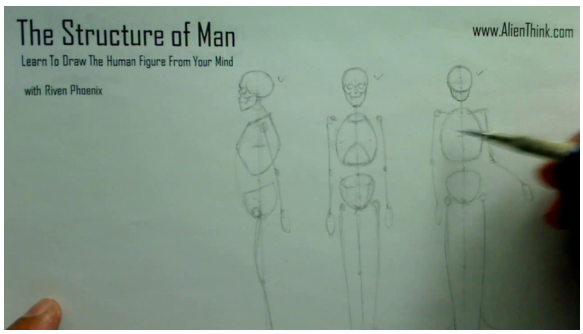
5		right?
6		And of course the toolkit is always going to be correct whenever we draw it out, right?
7		So the next thing we need to do now is start to look at something that we haven't really
8		put even on the toolkit is that it's like a bone structure here in the back which is

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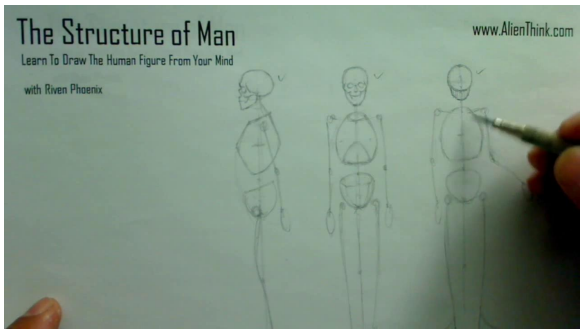
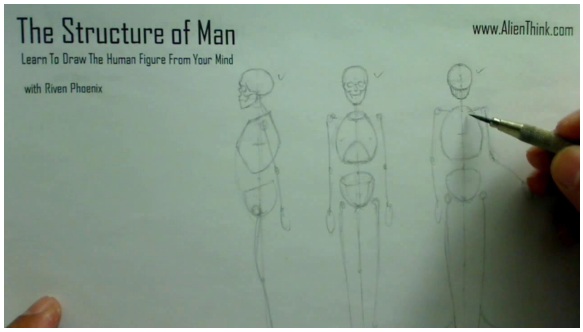
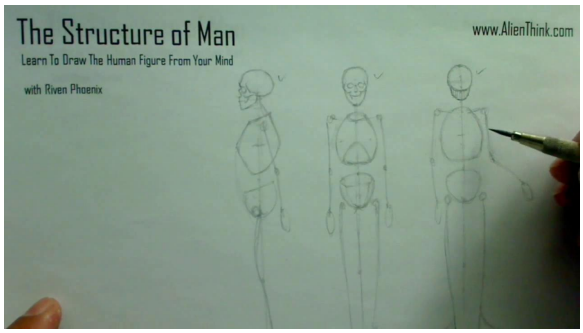
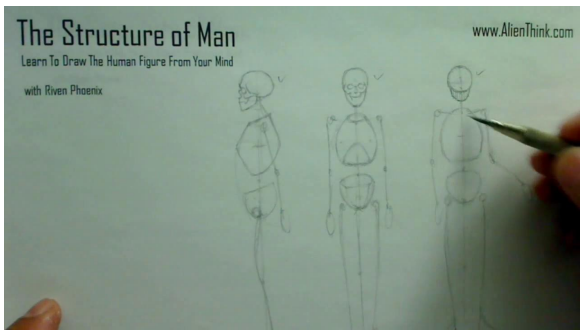
9		we're going to call the scapula, right?
10		So the purpose of the scapula is to hold the arm bone and attach it to the back of the
11		chance cavity.
12		So the formulas for the scapula are going to be actually very easy to understand.

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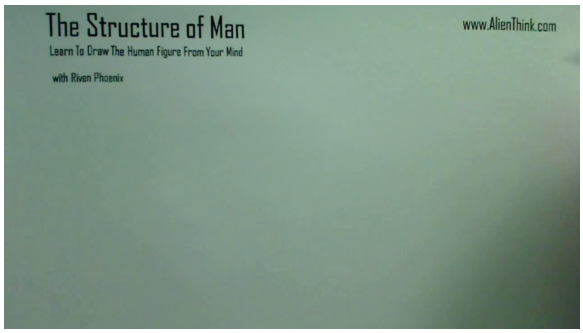
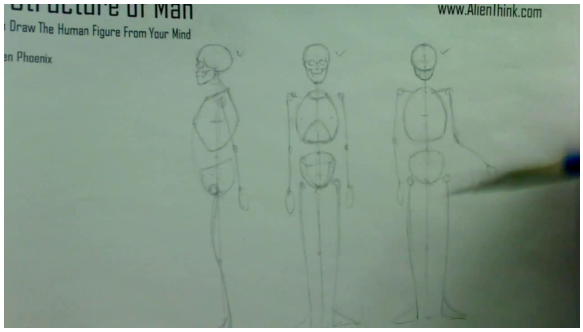
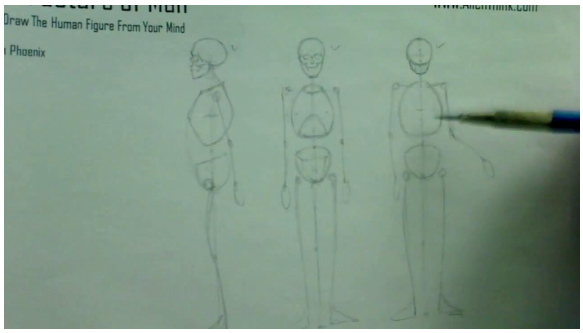
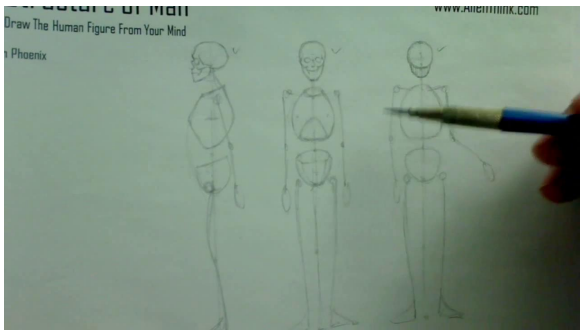
13		So again, you got to keep in mind that we already know that when we're drawing at the figures
14		we're going to be drawing them out freehand.
15		The only purpose we do it this way where we draw at the line and understanding the toolkit
16		is we're training the mind to understand how things are put onto the paper, right?

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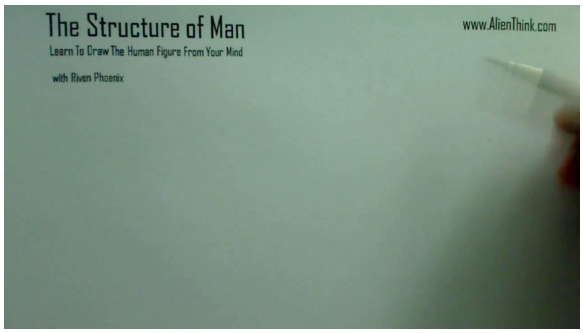
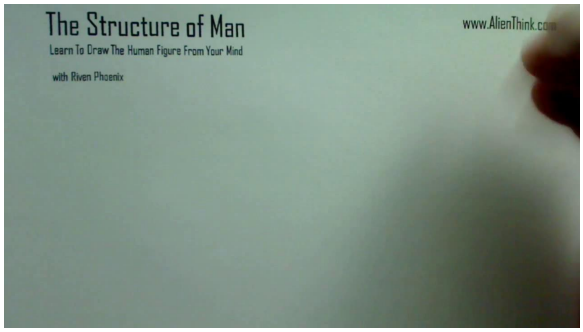
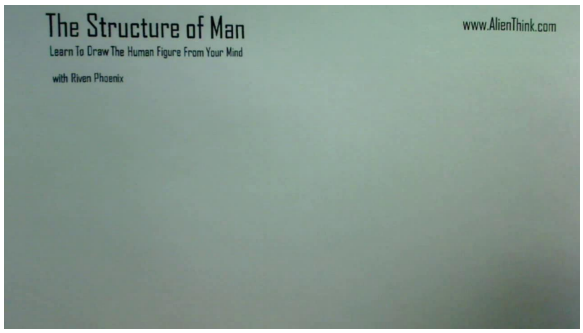
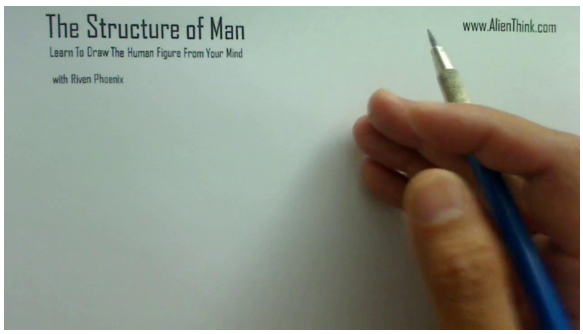
17		We cannot do it organic in the beginning.
18		We know that in the end we're going to do it organic.
19		So to understand the scapula on the back, we're going to look at the back view of the
20		scapula and the right side.

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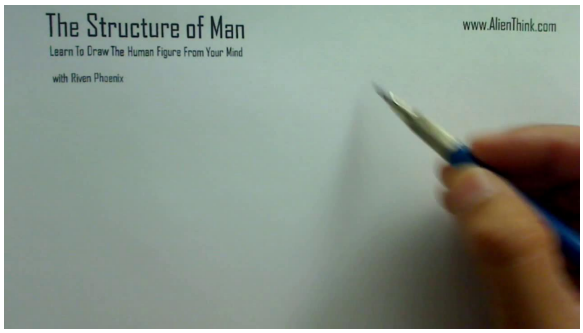
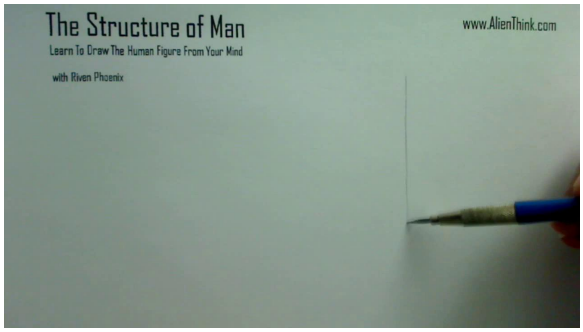
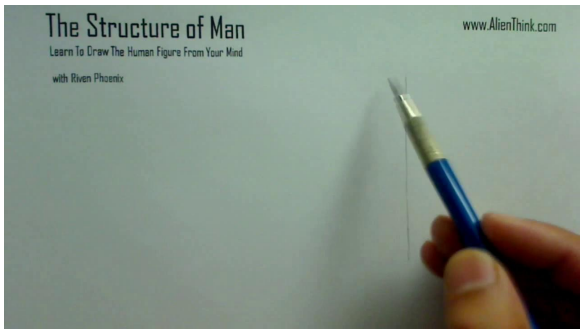
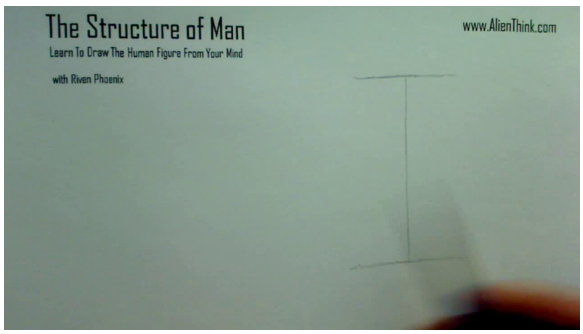
21		So to start out what we can do is really just draw a straight line here, right?
22		Just keep it pretty simple or just like this.
23		And from within it, we just need to draw a red tangle, right?
24		So in the formulas for the scapula that I'm going to be showing you, we don't have

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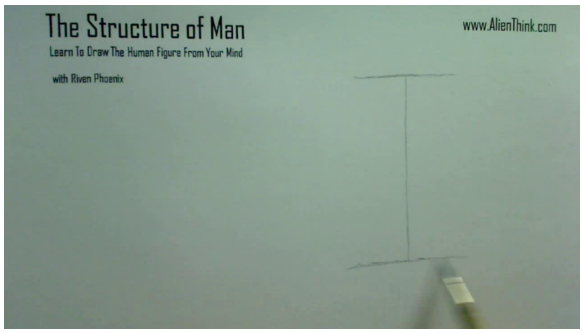
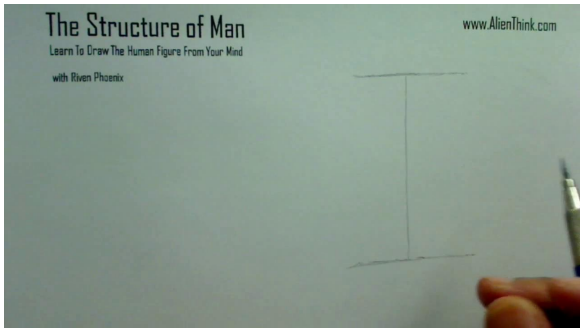
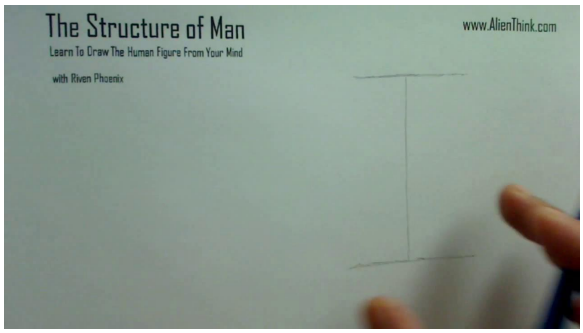
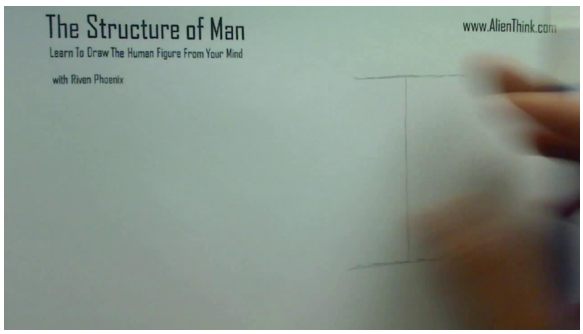
25		to really base this on any type of a length of width based on the structure of the skull,
26		right?
27		The scapula is going to be very different and when we put it on the back of the chest
28		cavity, it's just going to work out.

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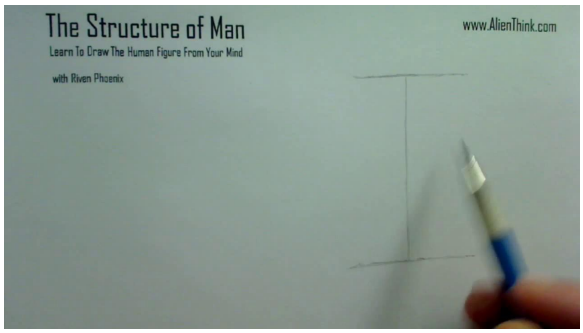
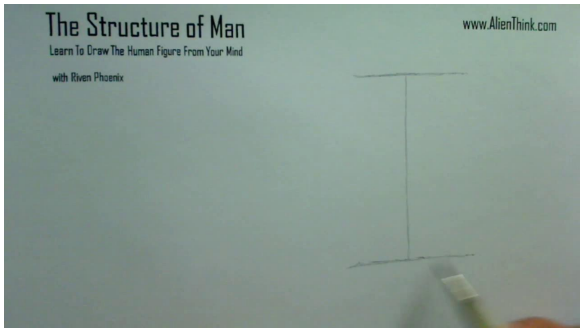
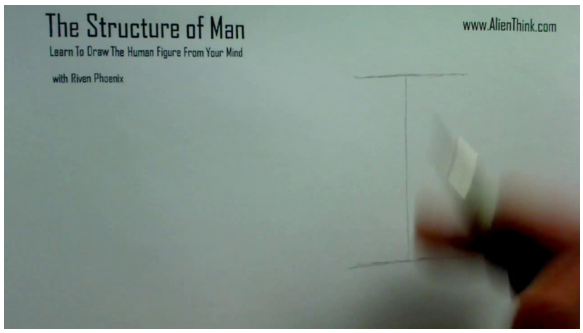
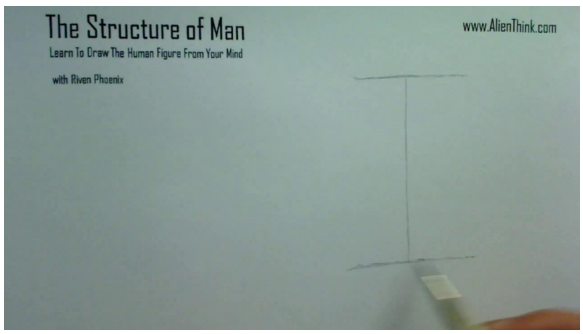
29		So just keep in mind that when I'm drawing out these formulas, right?
30		Like over here, it looks like it's going on a slant.
31		This is because the camera angle, the way it is, it's actually looking down a little
32		bit.

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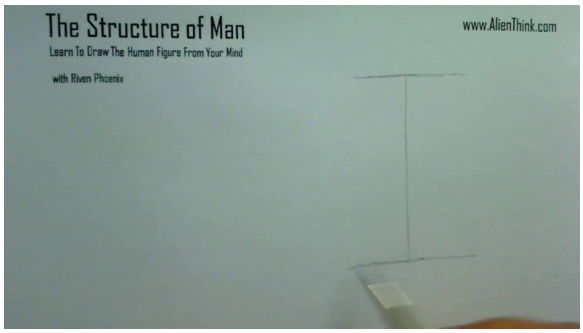
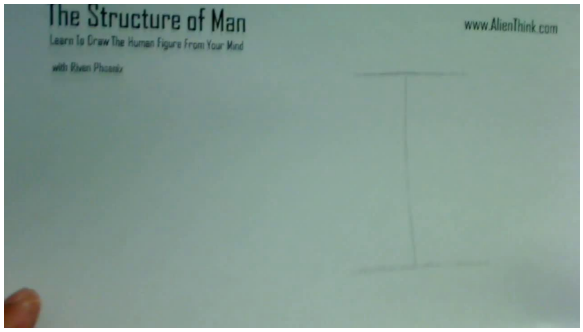
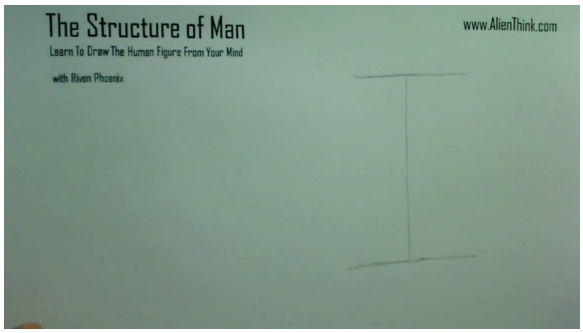
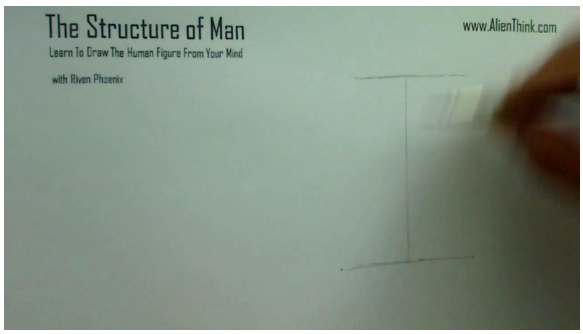
33		This is actually a straight on my paper, a red tangle, just to show you, say if I lift
34		it up, you'll see that I'm actually drawing it right over here.
35		Okay, so to draw the red tangle here, I'm just going to measure this like this and just
36		make sure that I'm drawing it out correctly over here, right?

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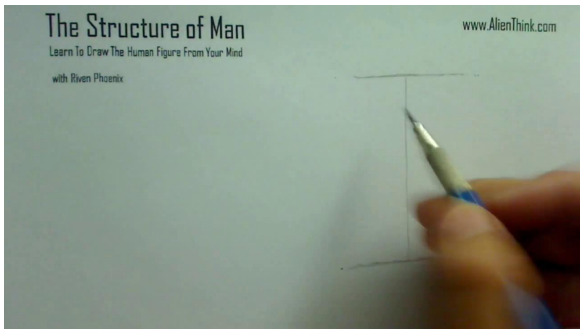
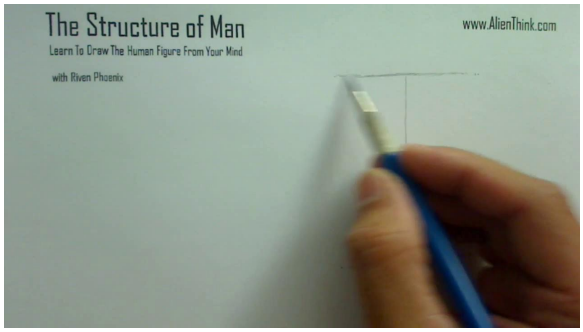
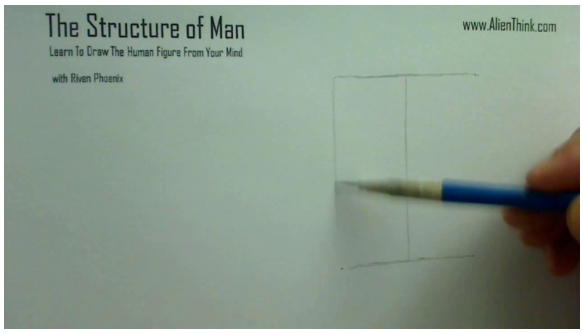
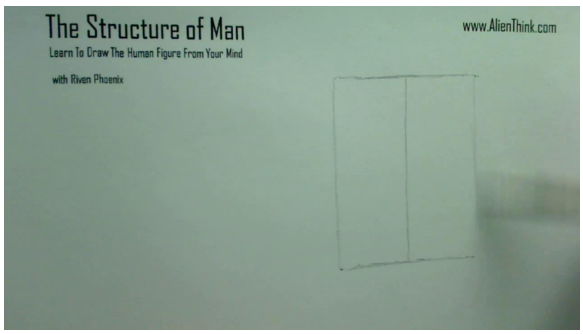
37		There are two ways of doing this.
38		You're going to just draw out the red tangle first and then do the central line later.
39		I just did it this way showing you what happens is that we draw the central line that
40		we have to measure, right?

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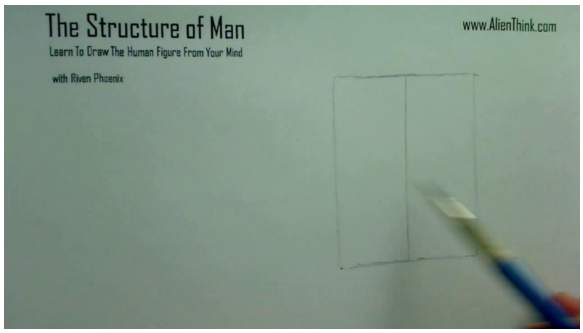
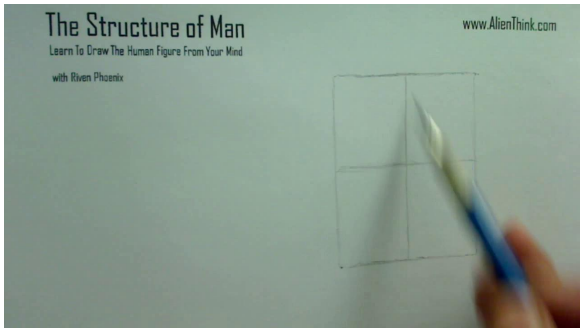
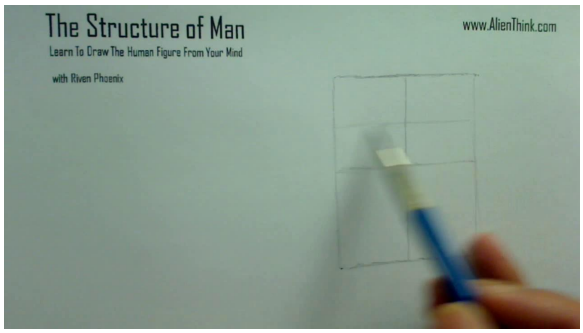
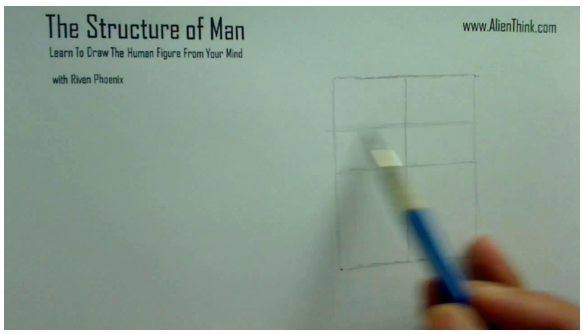
41		So once we've done this, we basically need to divide this in half just like this and then
42		divide this top section in half, right?
43		And that's it on the formula.
44		Right?

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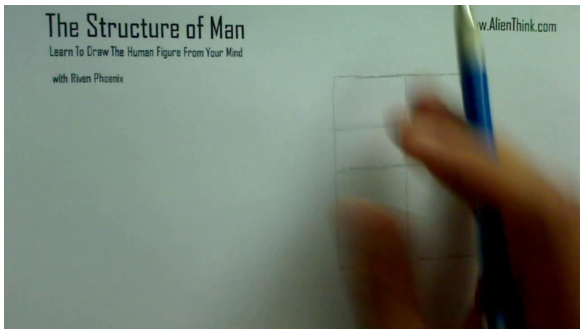
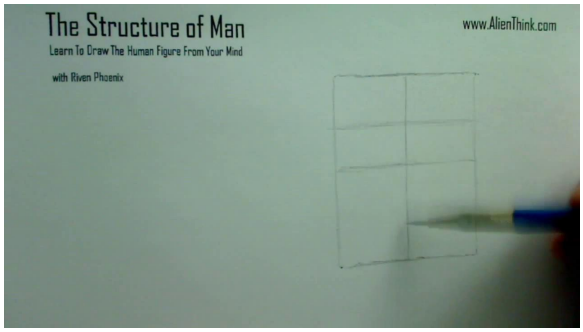
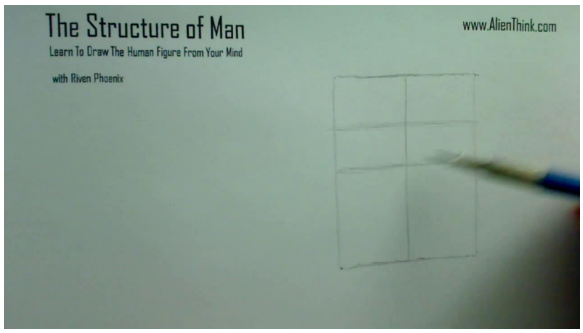
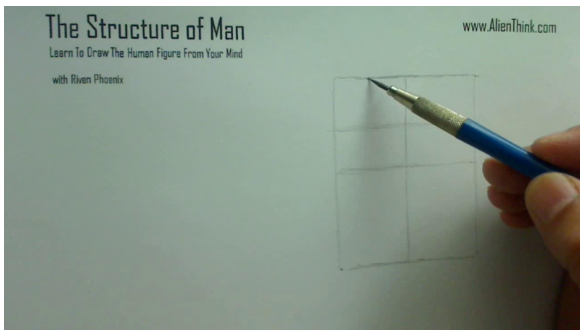
45		So you really don't have to remember much about this, it's just remembering that when
46		as soon as you put the X, it's going to come down to just understand where this line is.
47		So once you've done this, basically just put a dot over here on this end over here.
48		And what you want to do is pull a line in, bring it over here, right?

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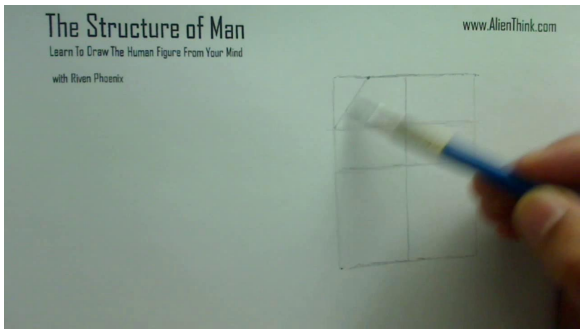
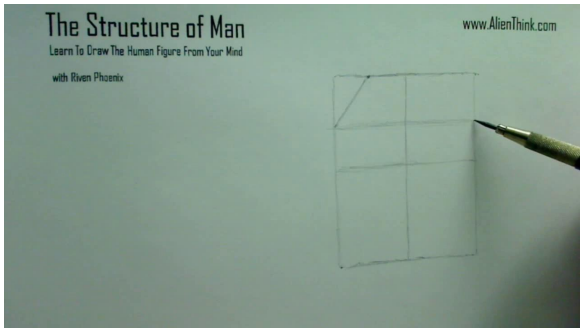
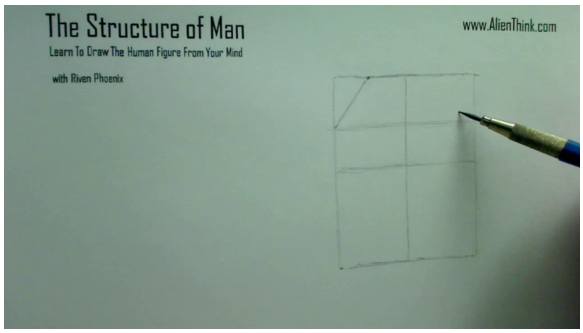
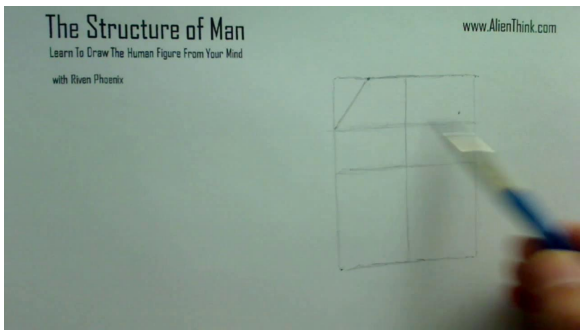
49		So if I pull this line just like this and then I need to pull a line all the way where
50		this point is, I'm just going to bring it around here, right from here, I'm just going
51		to make a judgment called that it's going to be here.
52		You really don't have to measure this out, right?

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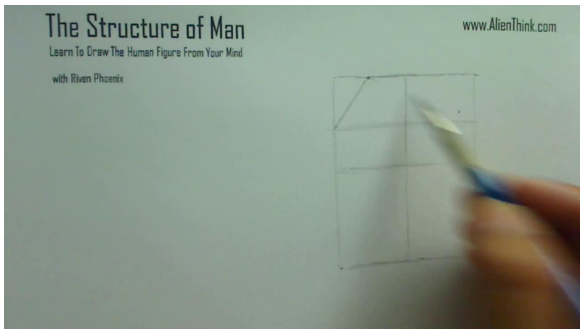
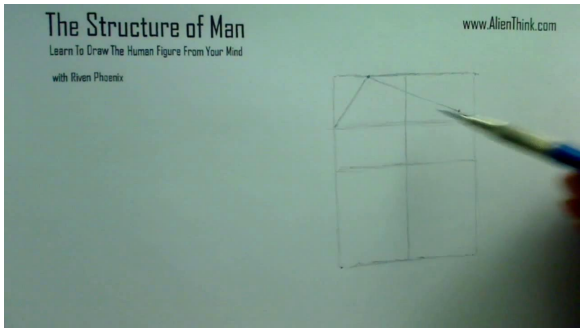
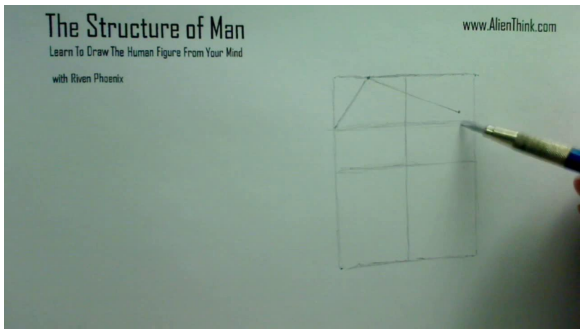
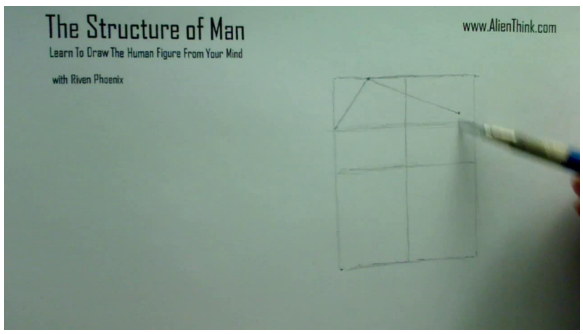
53		So here we can now pull this line over here just like this.
54		So just know that this is a little above and this is on the bottom.
55		Okay?
56		So once you do this, at this point, you need to just curve it like this and this is where

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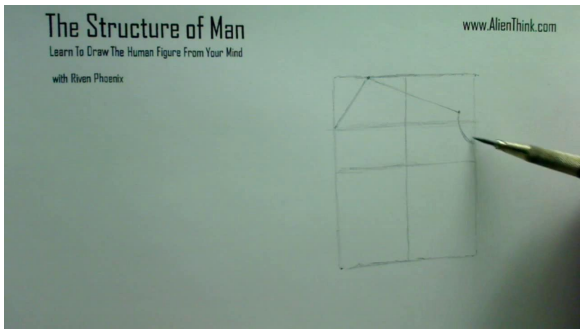
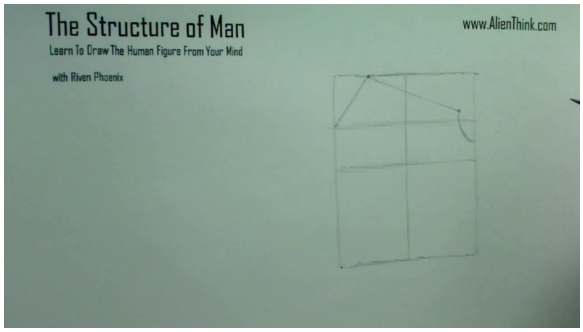
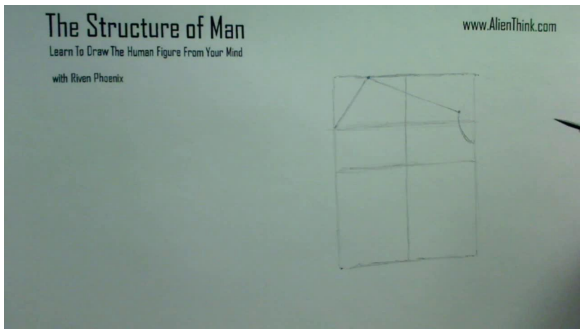
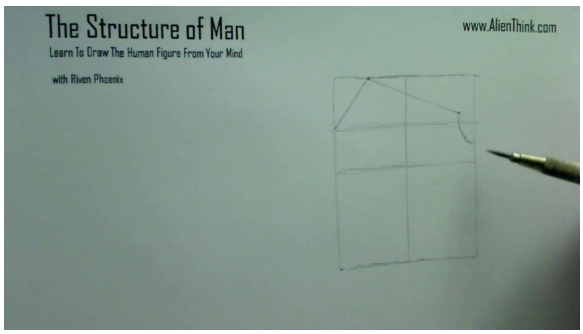
57		the socket for where your bone for the upper arm is going to go over here, right?
58		So what this is is this thing that I'm talking about, this ball joint is going to go here.
59		Right?
60		So once you have this, all you have to do is where this is coming this direction and

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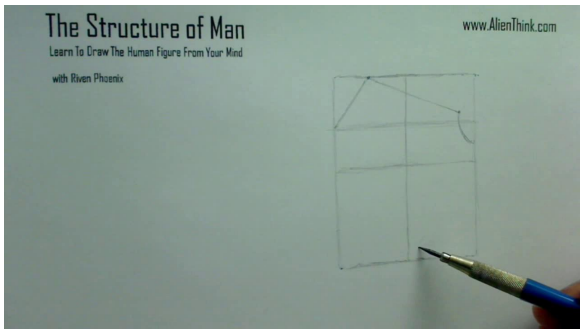
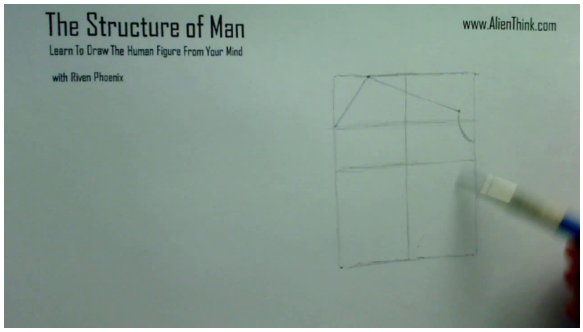
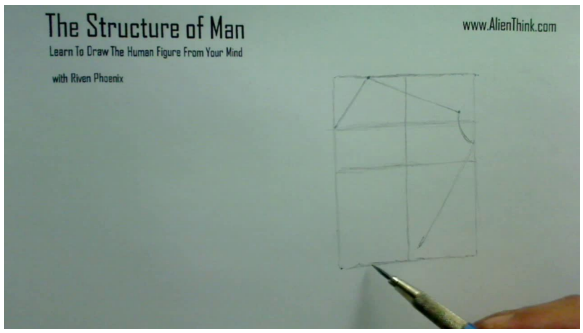
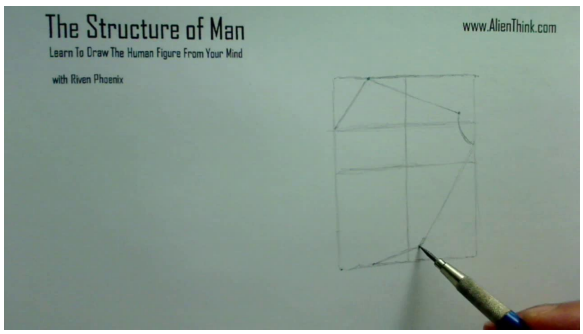
61		just stop around here, right?
62		So here I'm just going to pull this like this, just like this once I've got it.
63		And then all I have to do is really just come to the center like this is just again like
64		the idea of the jaw bone coming like this.

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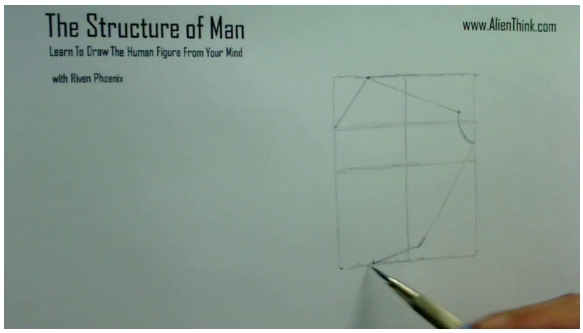
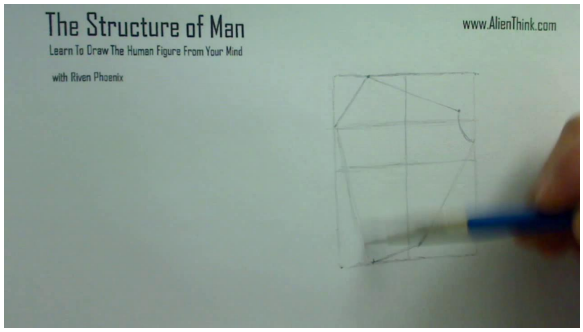
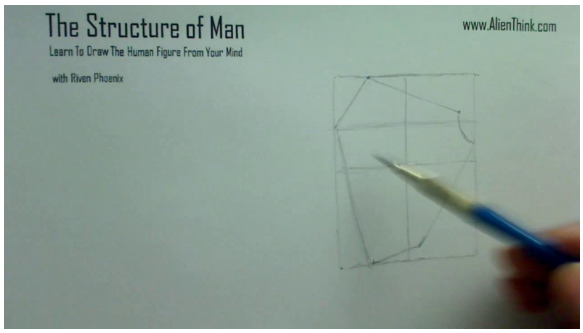
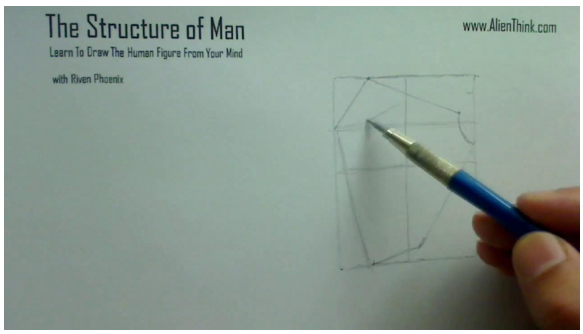
65		Once you have it right here smack in the middle, you just join it like this.
66		And this gives you a basic idea of how the scapula is supposed to look on the back.
67		So once this is done, we just need to put a bone over here and make it go like this,
68		like a curve, just like this, from here to here and then from here to here, right?

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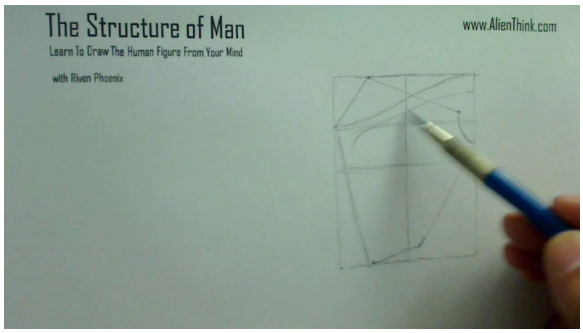
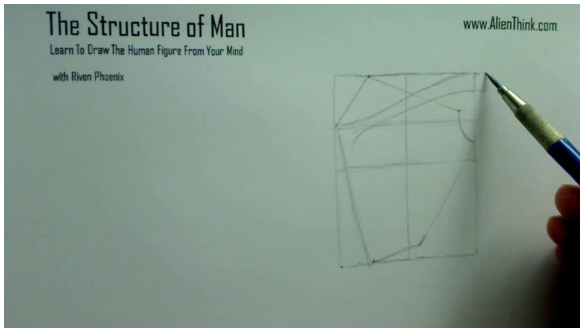
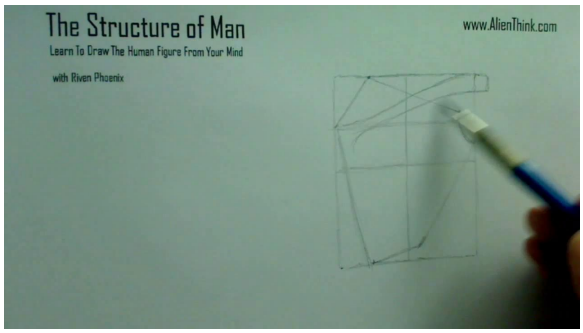
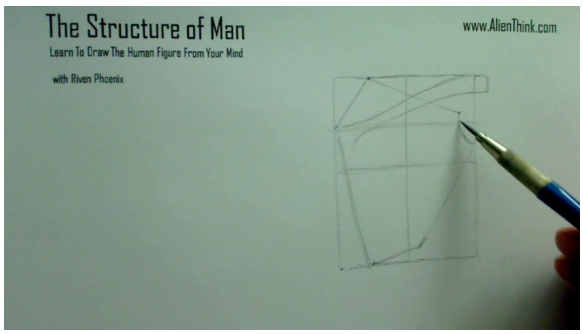
69		It's just going to be this bone over here and then when this bone is here, you're just
70		going to make it come out just a little bit like this, okay?
71		So this is the basic idea of the scapula.
72		So the other thing is that on the other side of this, there's actually a bone over here,

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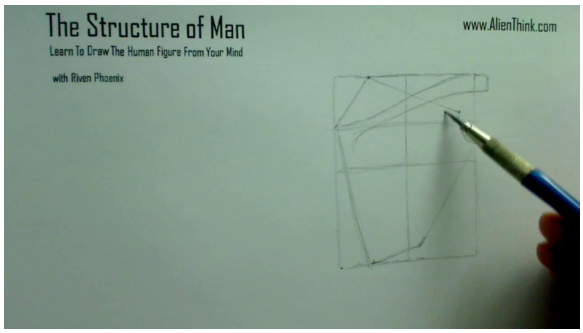
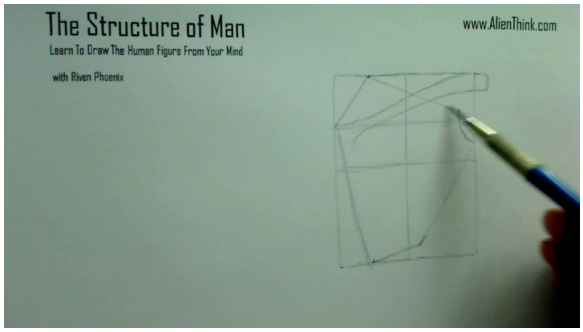
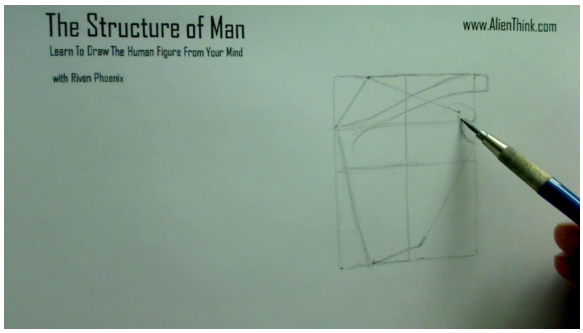
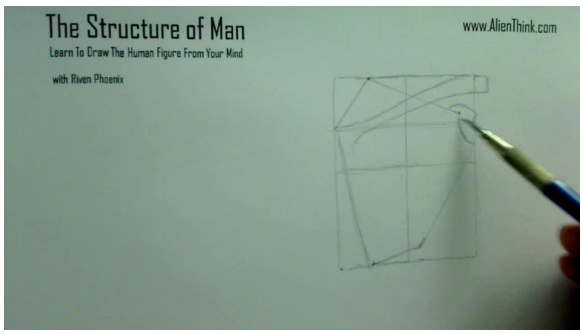
73		right?
74		It's basically going to be going like this, it's going to be sticking out.
75		So I just want you to remember that this is here.
76		This is not really, like you don't have to be too worried about this because this is

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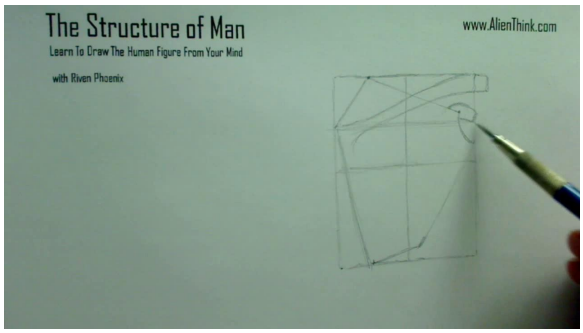
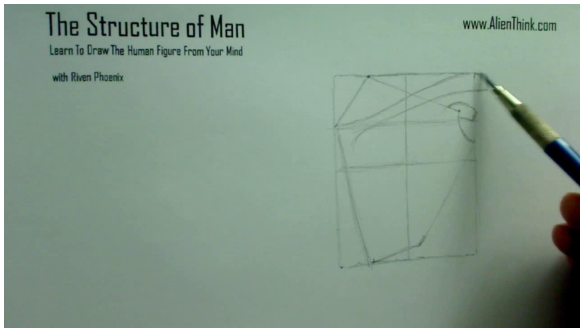
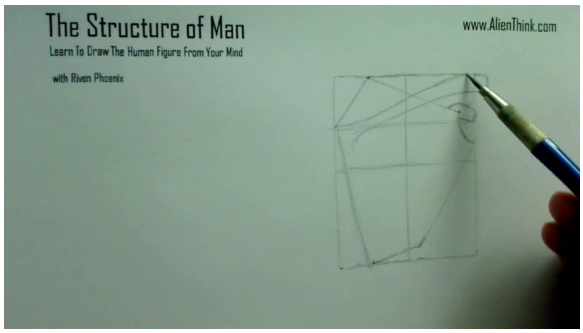
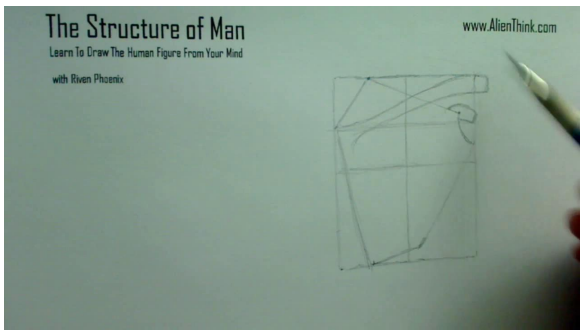
77		really going to be buried within the muscle structures anyways, but this is going to play
78		a very important role.
79		This bone here on the top of the scapula is because when your back muscles go here and
80		your ball joint sits over here, there's going to be like this little nudge here that's

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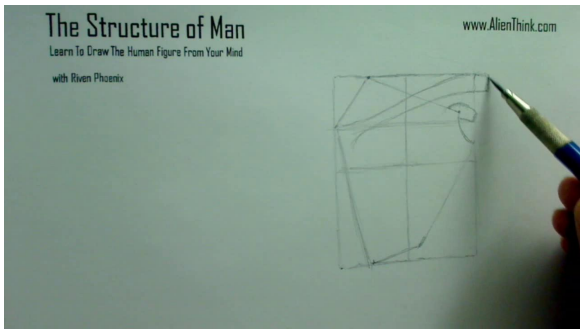
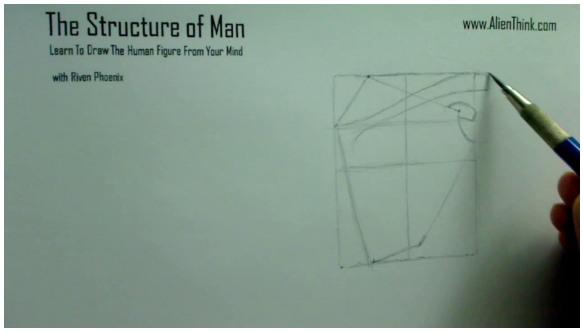
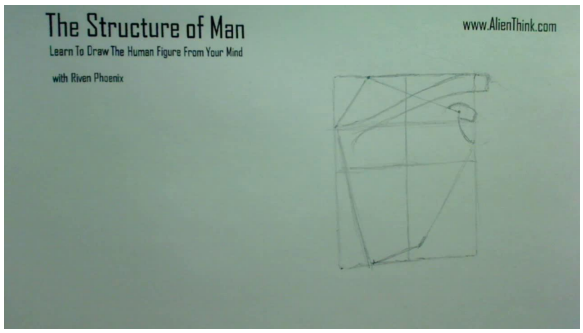
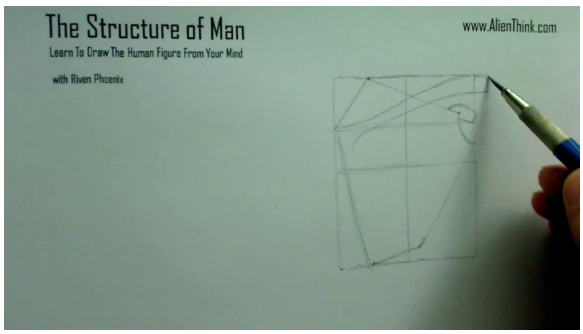
81		going to come down and your shoulder muscles go here, right?
82		So this is like that small nudge that you see if you hunt for this on the top of your
83		shoulder, you feel this bone and that's what this bone is.
84		So just remember that when you're even drawing these little nudge, this little landmark

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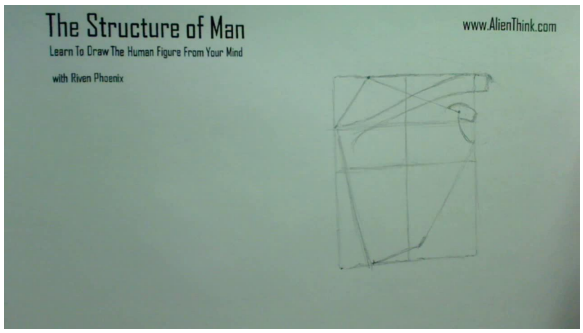
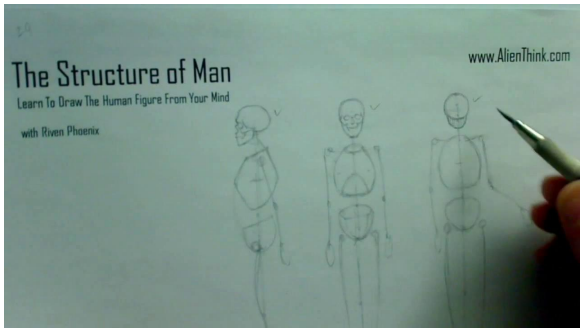
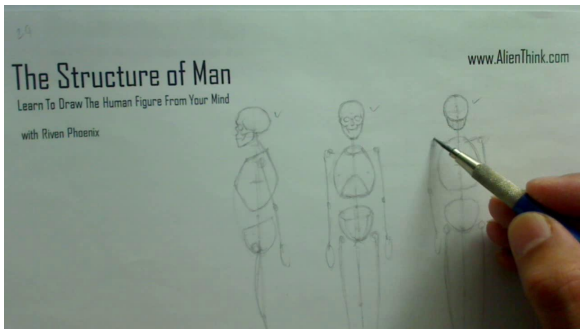
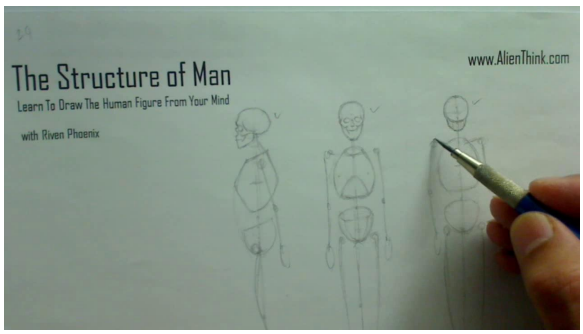
85		on the figure exists, right?
86		So what I'm talking about here is that if we had some muscles over here, we know that
87		there's going to be a little bone and then it did, right?
88		It's so small, but this is a significant area of the human figure.

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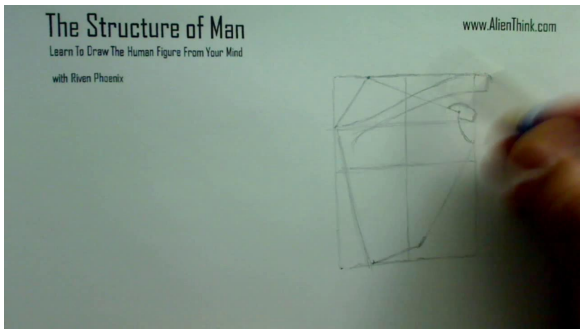
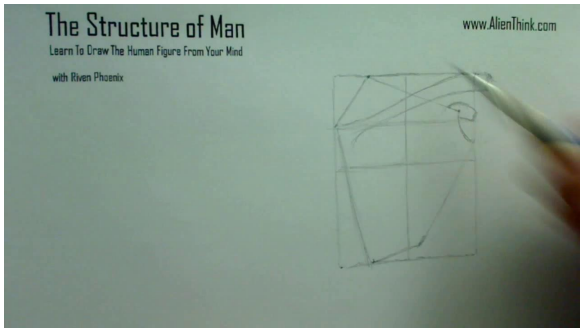
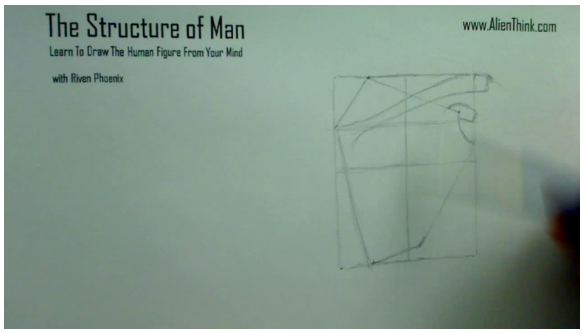
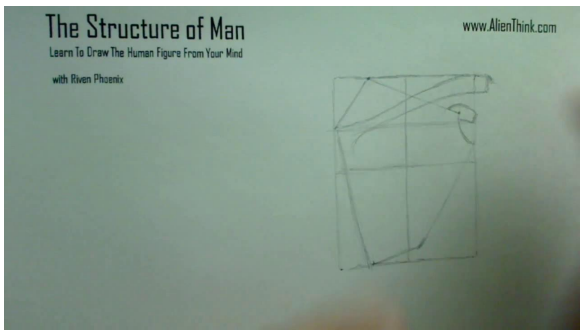
89		So that's really it for the formulas, for the back of the scapula, right?
90		So now how would you draw this free hand?
91		Well, we can simplify this very easily right now and that is we just need to remember the,
92		we know that it's going to be a rectangle like this, a elongated rectangle.

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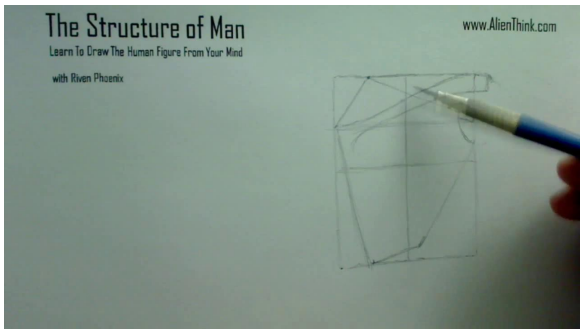
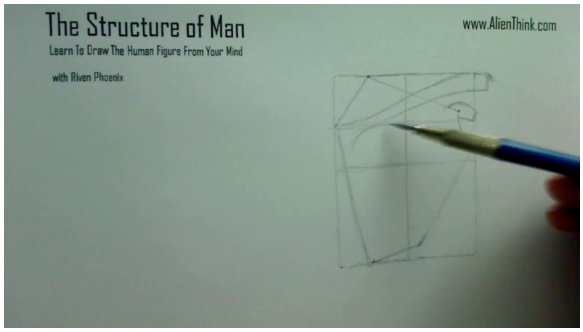
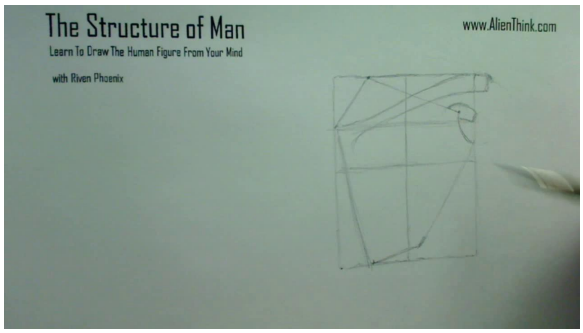
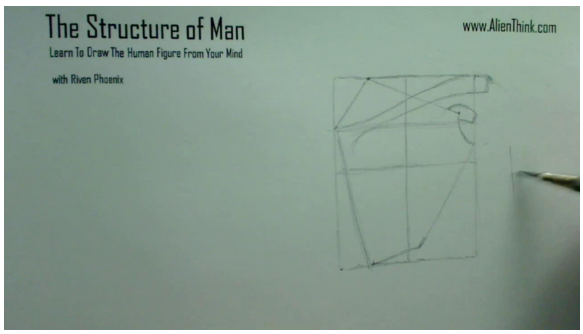
93		So we just need to remember this, this X over here, as soon as we do the X, we know that
94		it's just going to be like this, right?
95		So over here, let's say if I had to draw this free hand, I could just draw a line like
96		this just like this and I know it's going to be here.

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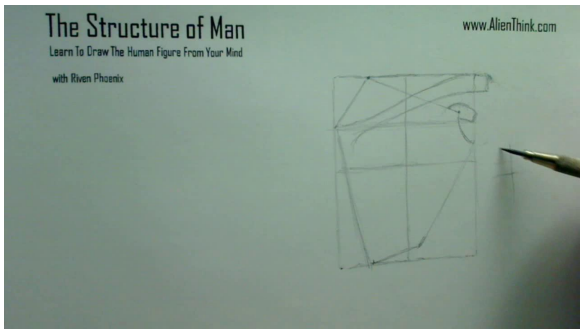
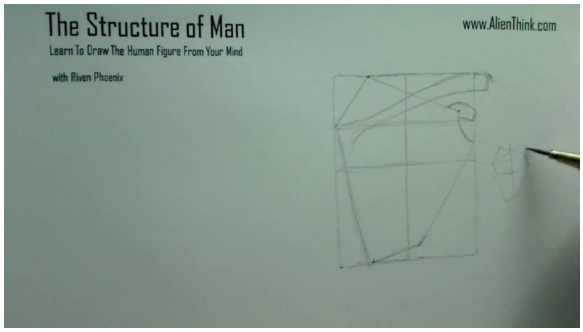
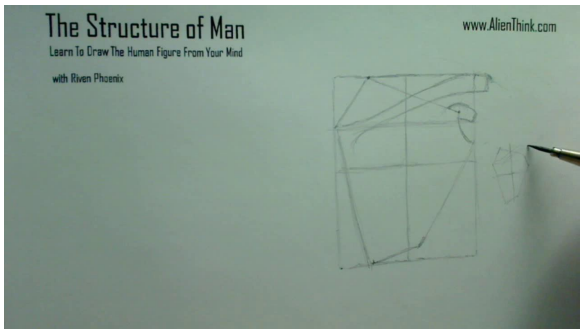
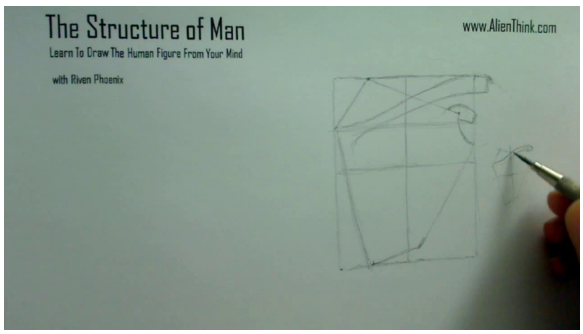
97		I know that all I have to do is just go like this over here and there you have it.
98		I have my scapula, right?
99		And I know that I'm going to come a little bit out with the bone structure just like this over here.
100		So here I'm just sketching it out for you, right?

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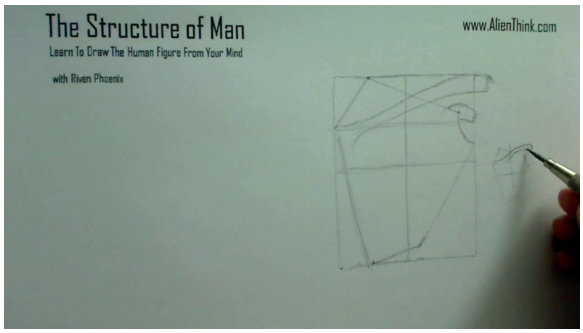
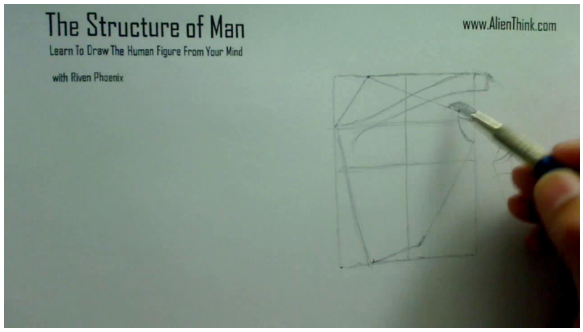
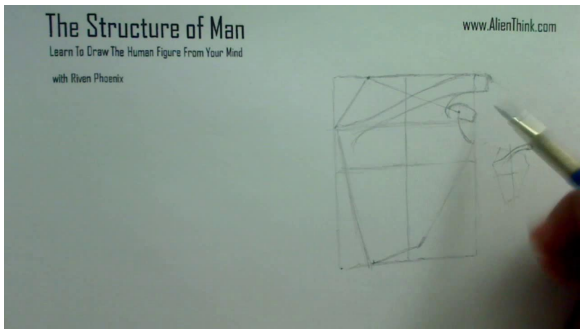
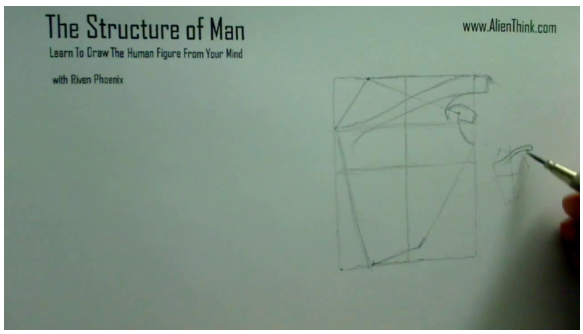
101		So where this bone is, right?
102		Over here, this bone structure here is going to actually come down and attach it back,
103		back to the back of the scapula, meaning that this bone structure is coming out from the scapula,
104		right over here, just like this.

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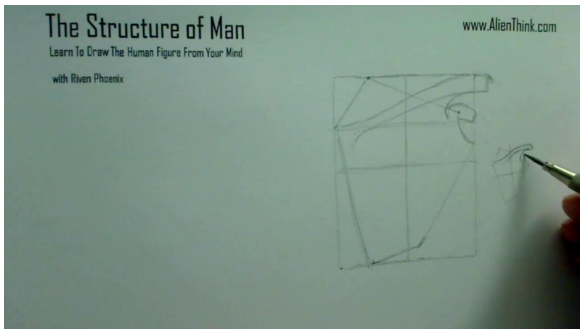
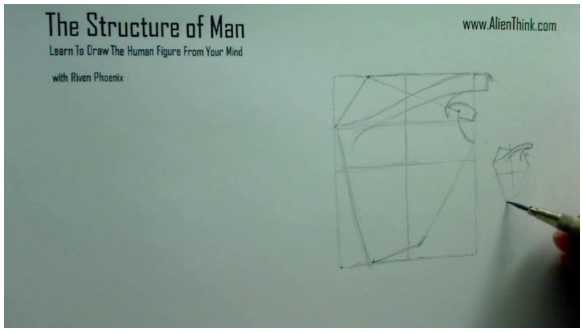
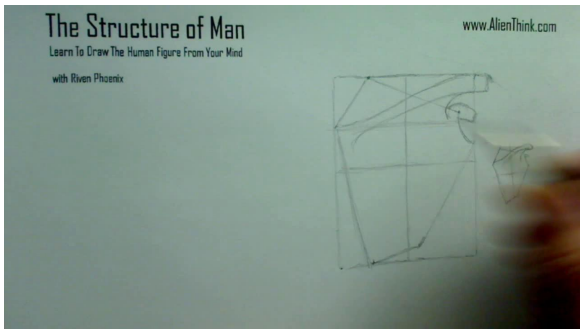
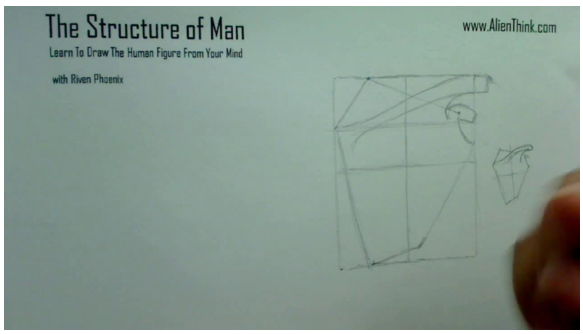
105		Right? So this is how you do this scapula and look how easy that formula was.
106		We can just do it free hand without much effort.
107		So now this sets us up to a different way of looking at some parts of the human invention
108		of this human skeleton is that we need to understand what does it really mean about this

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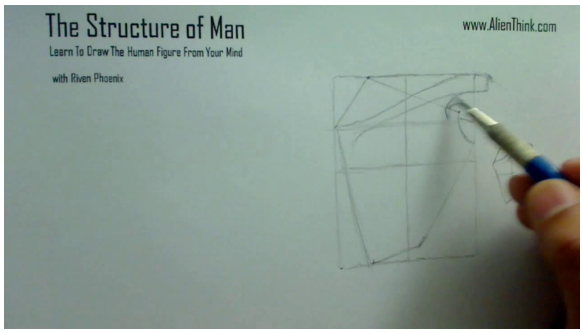
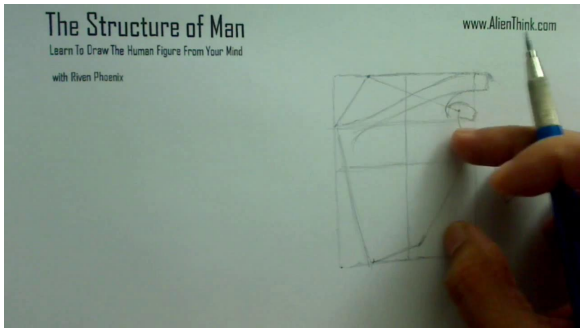
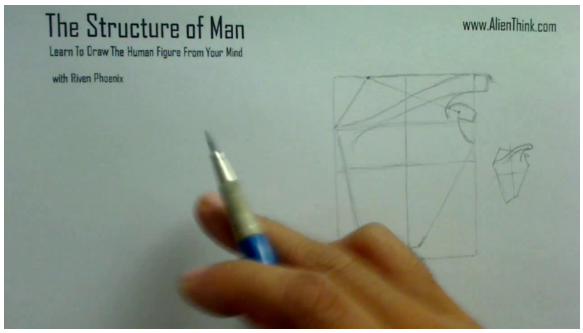
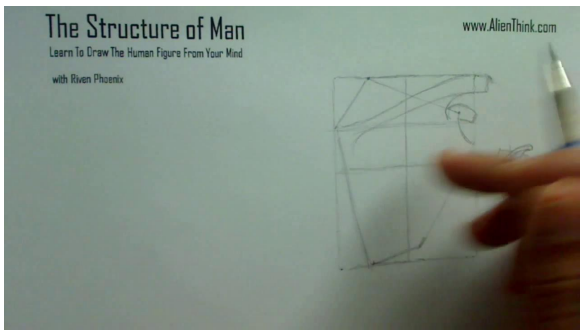
109		bone that's sticking out and how to be really conformed the mind to begin to understand
110		this in a 3D form.
111		So here what we can do is actually create a 3D form of this just by using this formula.
112		Now the thing about the scapula is that when you let just like how we understood the skull

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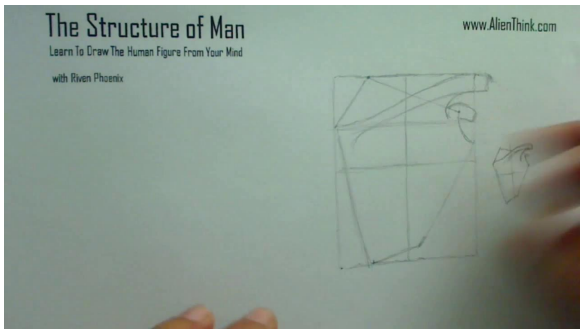
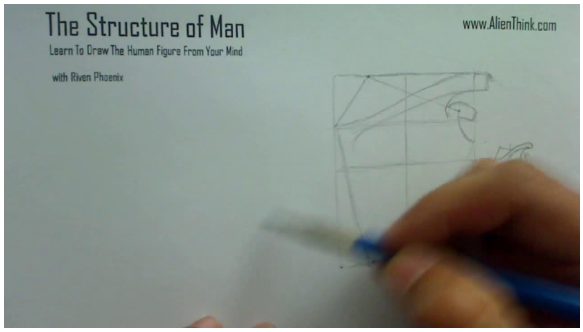
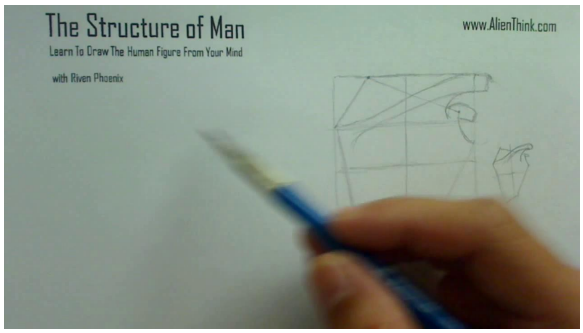
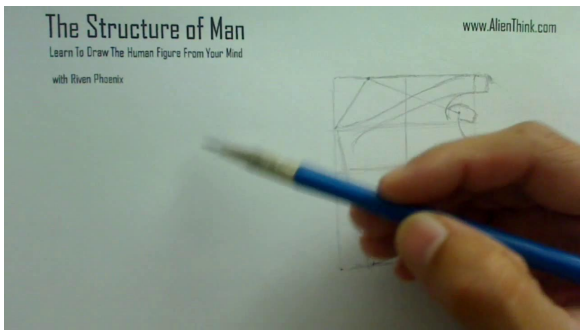
113		in a 3D form where we just do the circle out, right?
114		We draw it out very easily looking at a 3D form.
115		Here for the scapula, we really just need to look at it like it's a block of wood.
116		So to do that, what we want to do is let's just pull this line over here like just about here.

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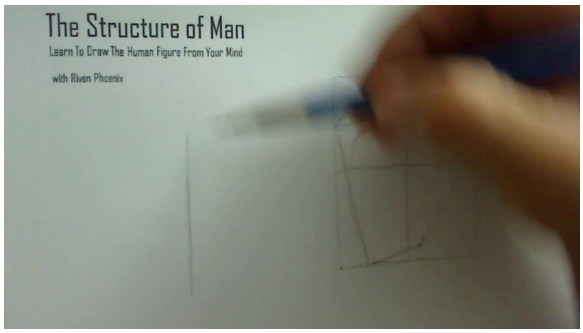
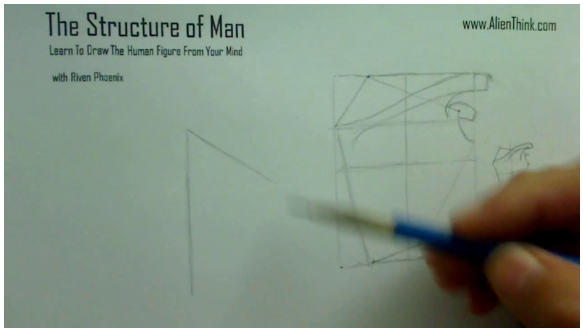
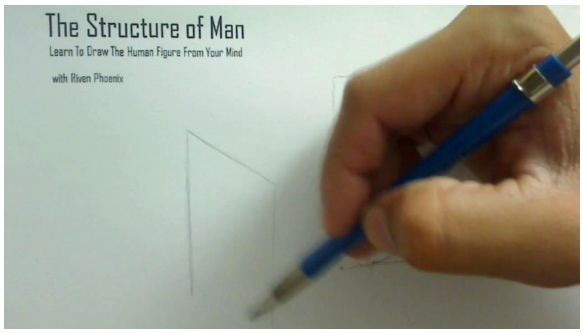
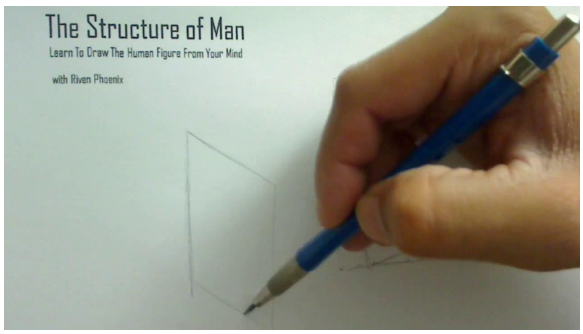
117		In here, I'm going to make a 3D box like this.
118		Right? I'm going to make this go in this direction and then here,
119		I just want to make sure this is going to be on camera here.
120		I'm going to pull it just like this.

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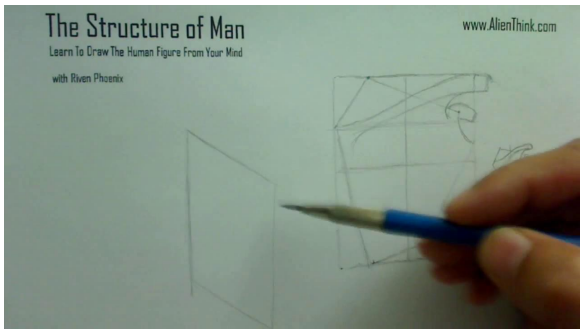
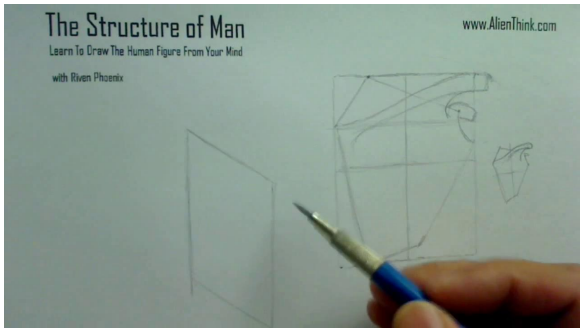
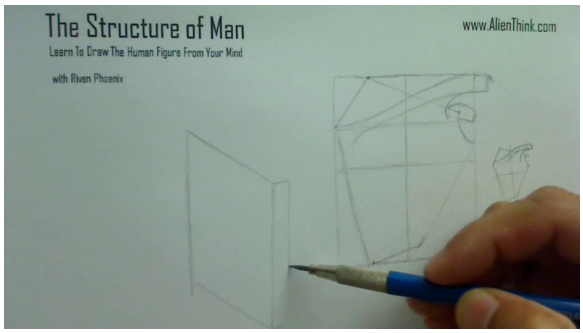
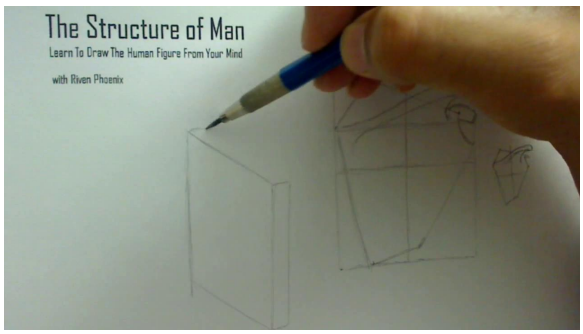
121		Right? It's like this rectangle, let's say.
122		So once we have this, we just need to turn this into like this skinny rectangle over here.
123		Just like this over here.
124		And then pull this out.

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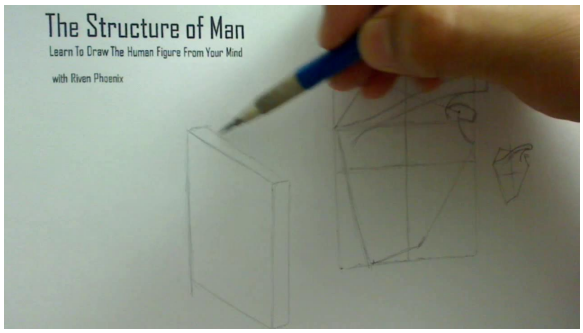
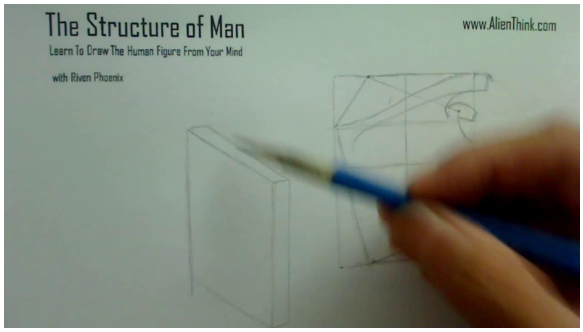
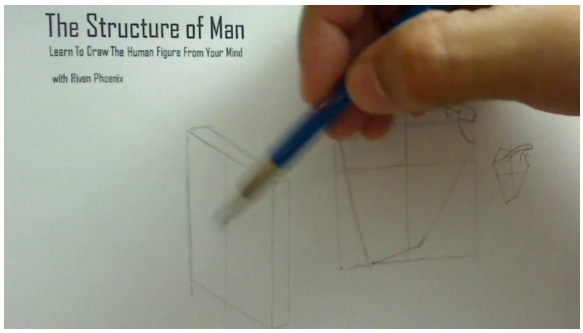
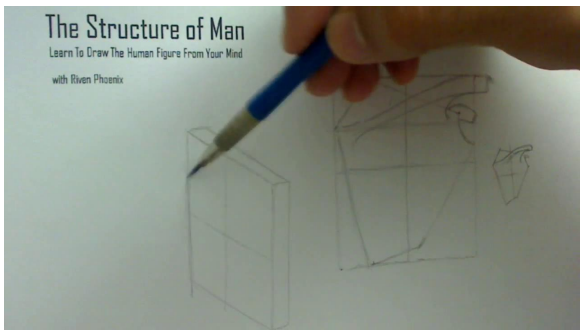
125		Right? So it's like this plank of wood that we're now going to saw out this concept.
126		So we know that we just need to divide this in half like this.
127		And we also know that we need to just put an X over here.
128		And we know that there's a line here also for this division.

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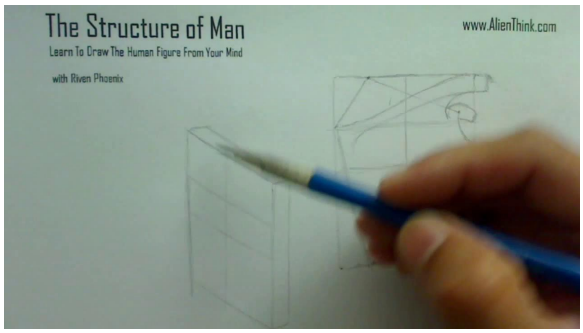
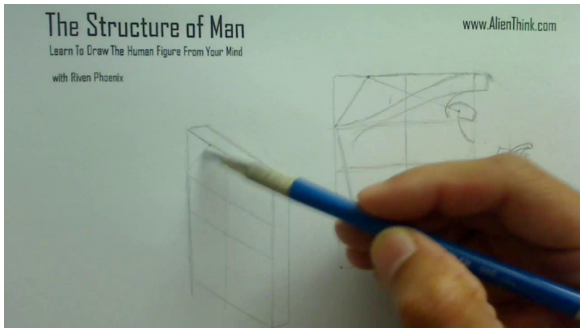
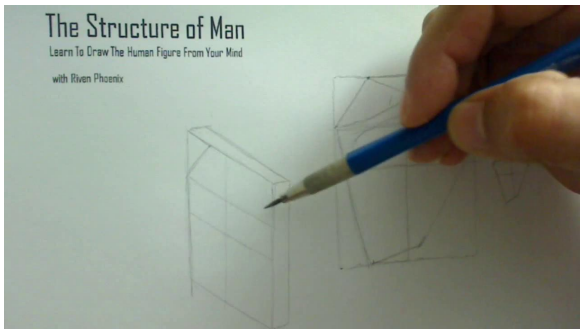
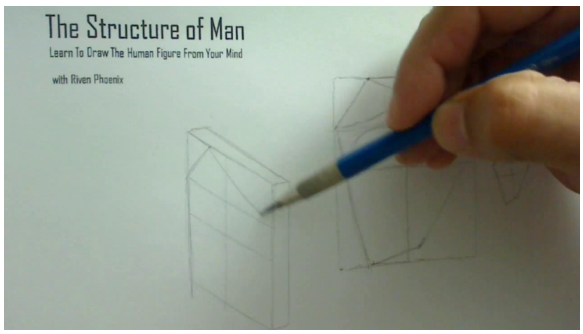
129		Once this is done, we just know that when we start out with this dot over here,
130		we really went in this direction like this.
131		And then over here, we came about here, right?
132		A line like this, then we did like this curvature.

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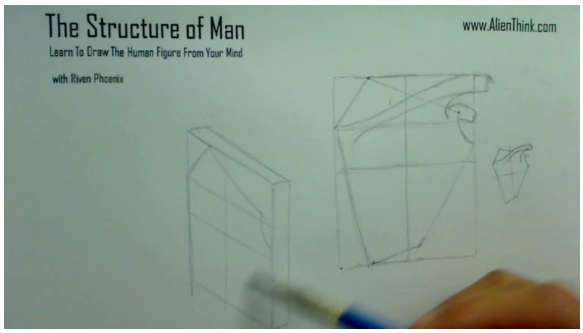
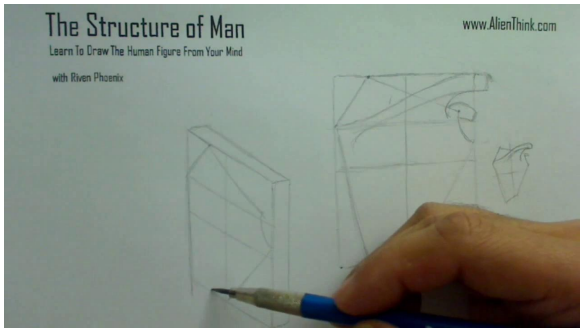
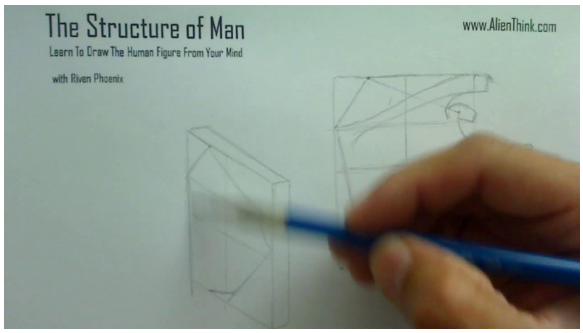
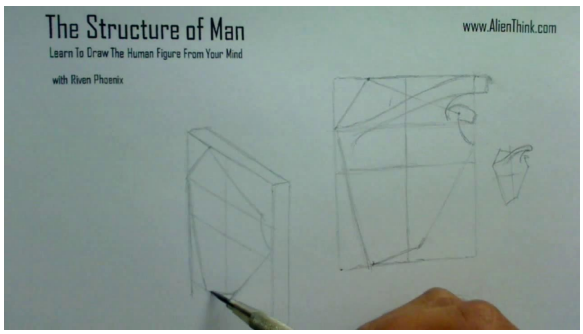
133		Then from here, we went down in this way.
134		And then it was like borough or a design for like a jaw over here.
135		And then here, we can just pull another line.
136		Right? So once we have this, we can start to now cut this out.

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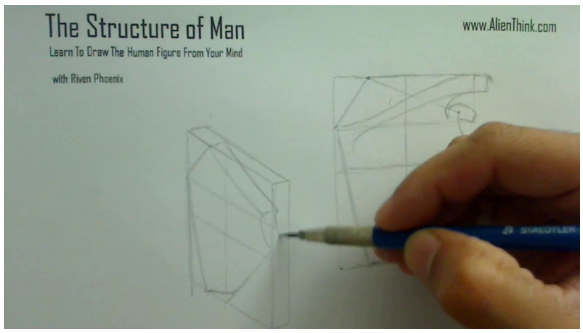
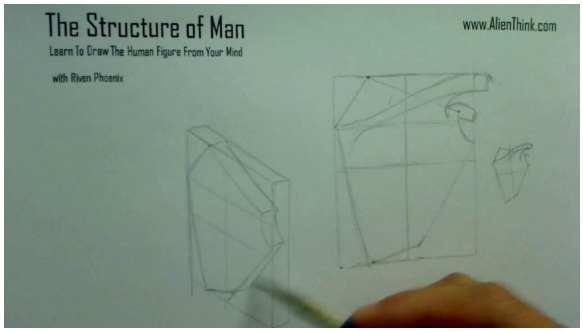
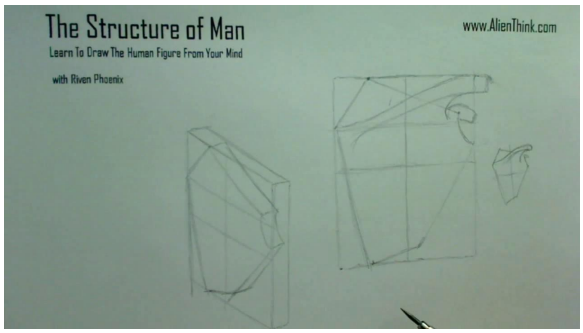
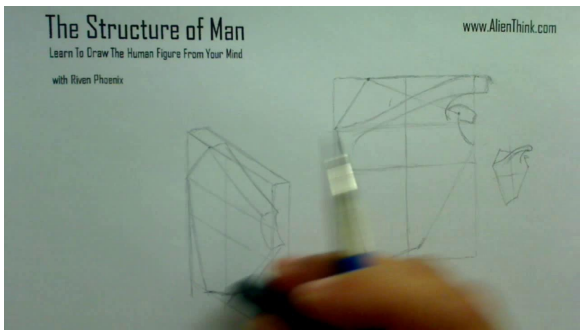
137		This block from this piece of wood over here.
138		It's just going to go in this direction over here.
139		Right?
140		So just going to clean up some of these lines here.

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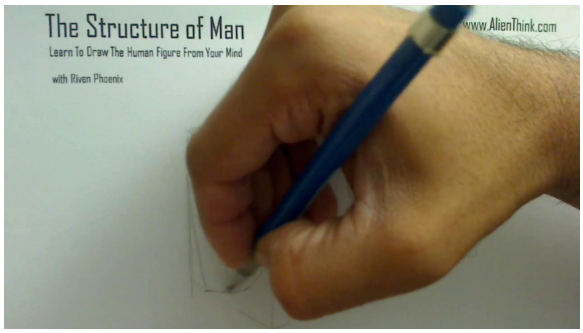
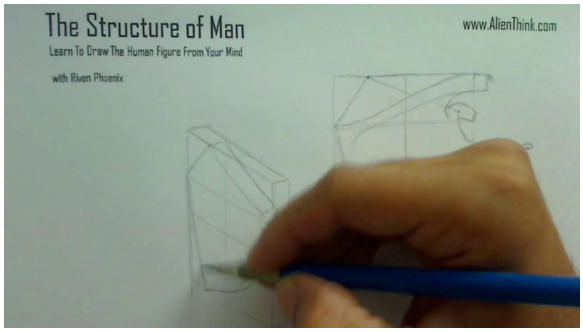
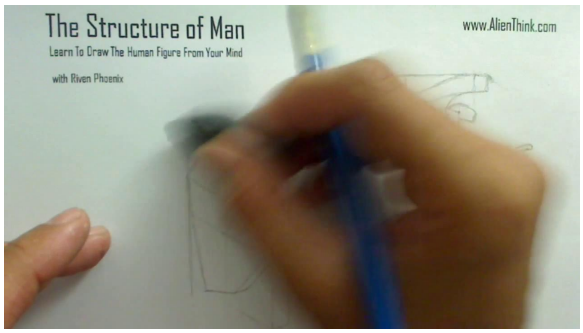
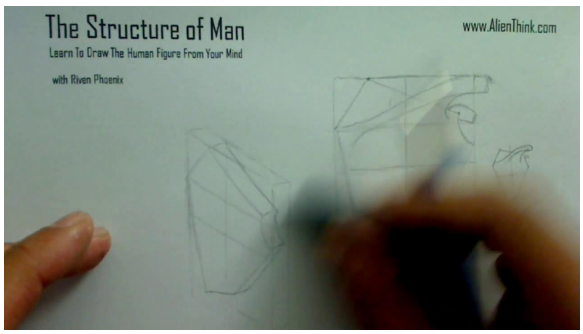
141		Just like that, right?
142		So to understand this here, I'm just going to like enough some of these grid lines.
143		So we can just bring out the scapula a little more,
144		but I'm just going to still leave them there because we're going to use them as references.

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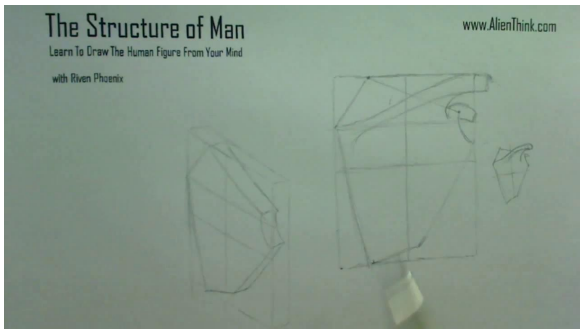
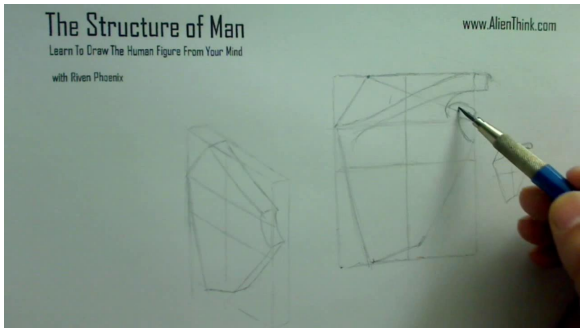
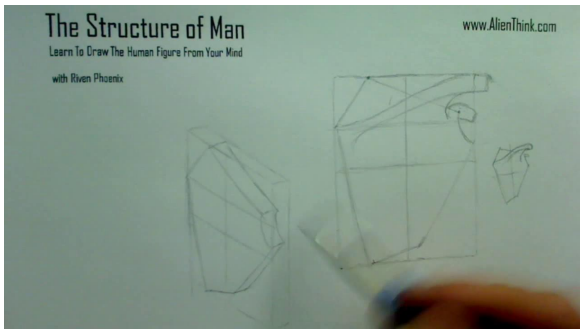
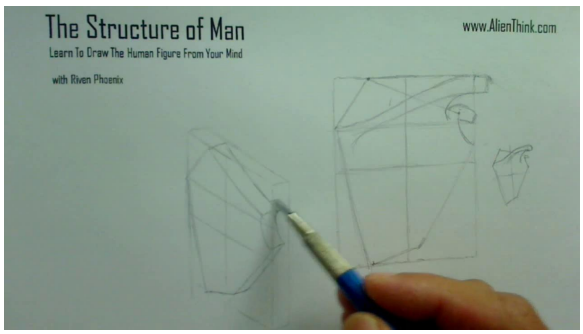
145		Right? So this is the design for the scapula.
146		So let's talk about this bone here.
147		So the basic understanding of all this is really that if you take,
148		let's say another cube out, just pull this like a cube from the side of this.

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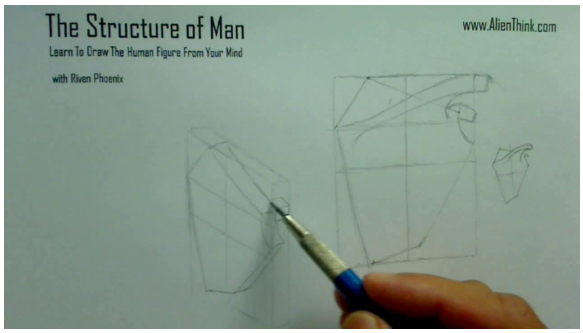
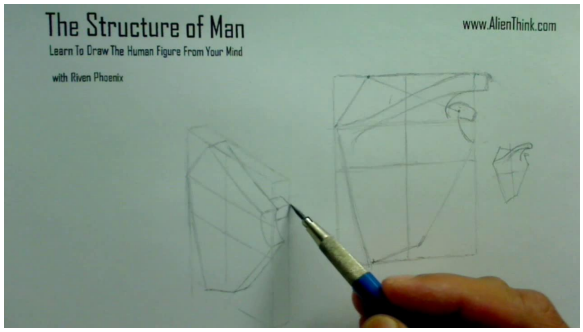
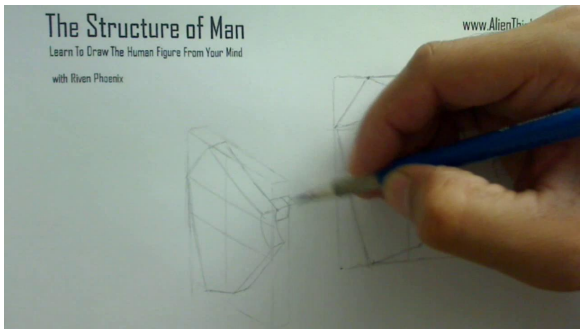
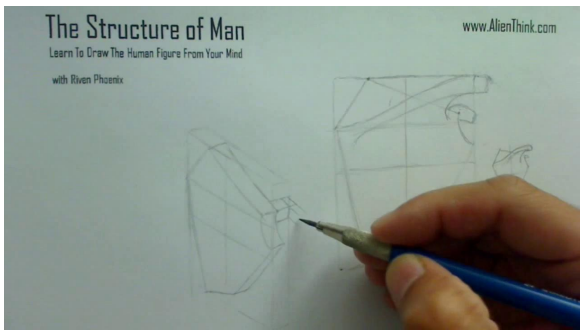
149		Let's see, I put a piece of wood here.
150		Then I put another piece of wood just like this.
151		And then made it come out like this over here.
152		Right? This piece of wood is basically acting like this.

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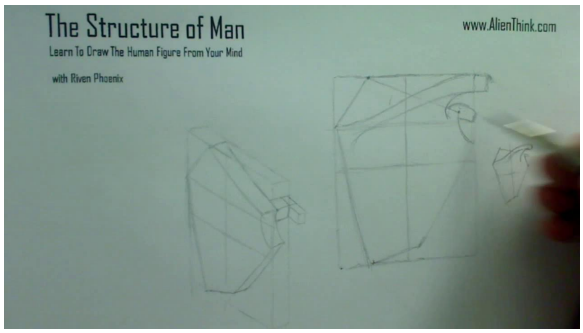
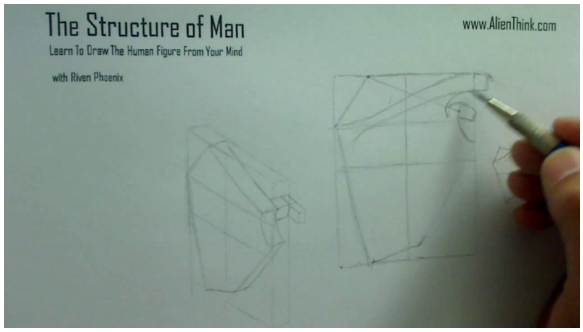
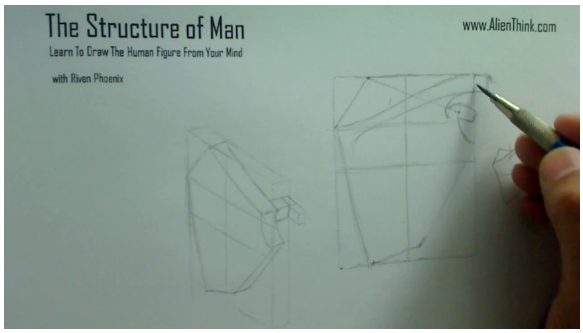
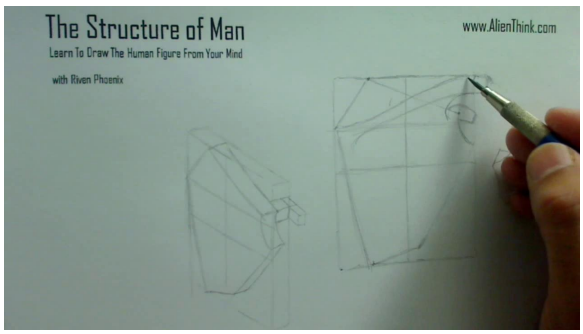
153		Right? So this is going to help put this ball socket for the bone for the upper arm in here.
154		So now we need to understand how are we going to accomplish this guy over here.
155		So the thing about this is that when this bone comes out,
156		this bone is actually curving and going in the other direction.

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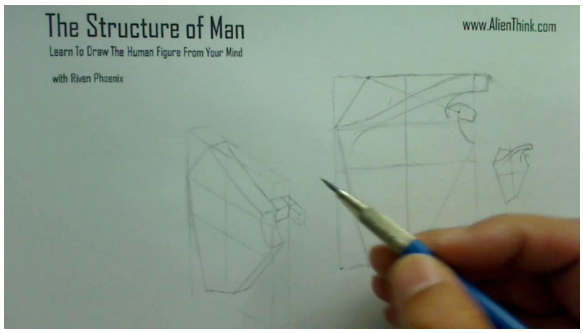
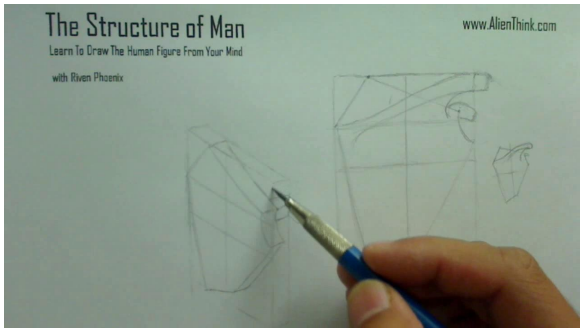
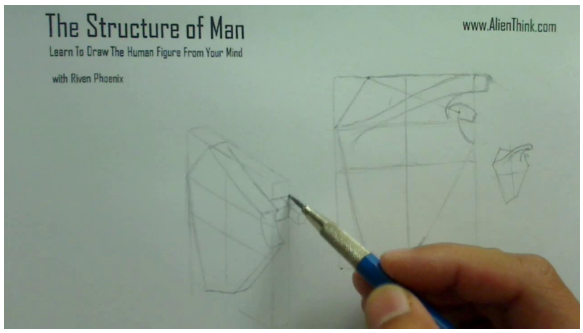
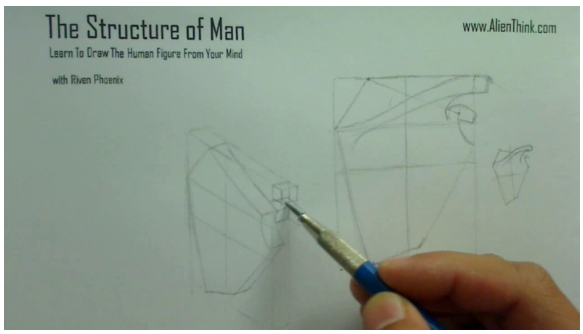
157		Right? So to understand how this is working is that here will make this bone over here.
158		We know that it's going to be over here.
159		Let's just take this piece here and then here I'm going to extrude it a little more out this way over here.
160		Just like that. So now this becomes like this floating cube over here in front.

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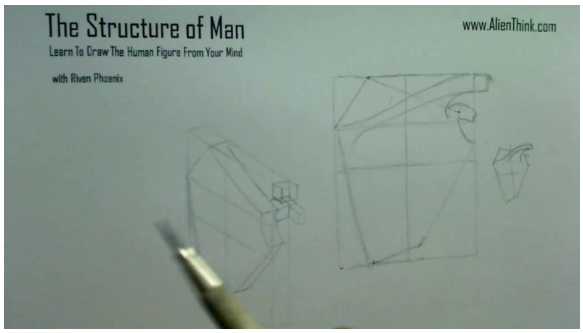
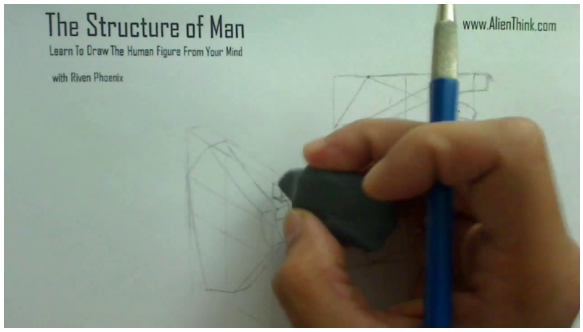
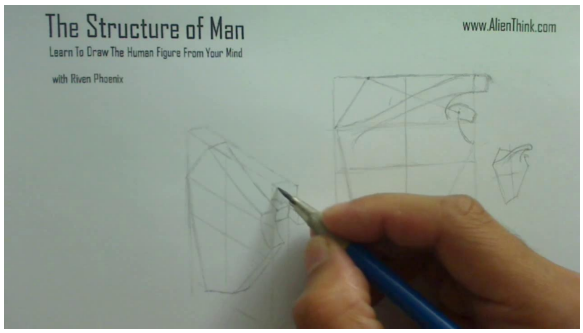
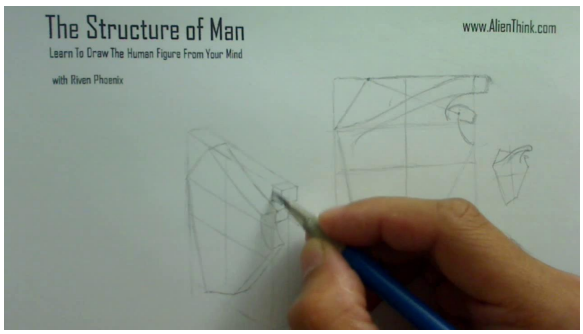
161		Right? So it's this piece over here.
162		So here I'm just going to erase some of these lines so you can see what is it that I did here.
163		Right? So this is that cube over here.
164		Just like this, it's floating in the air.

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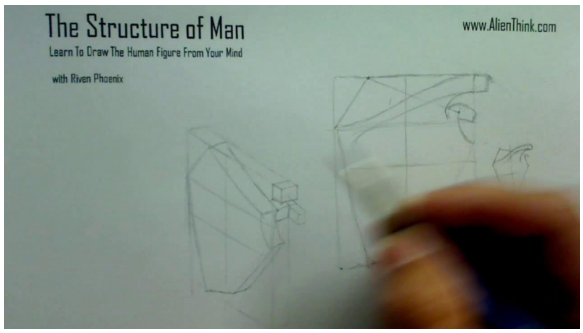
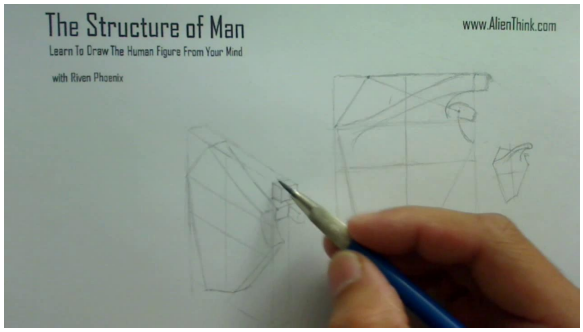
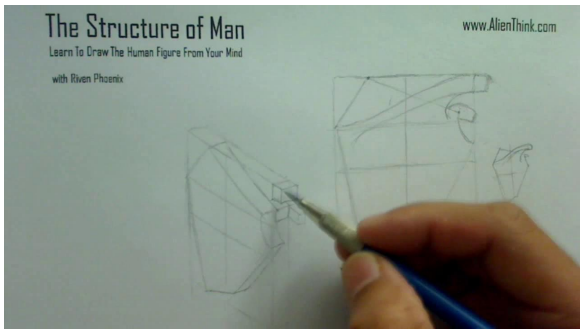
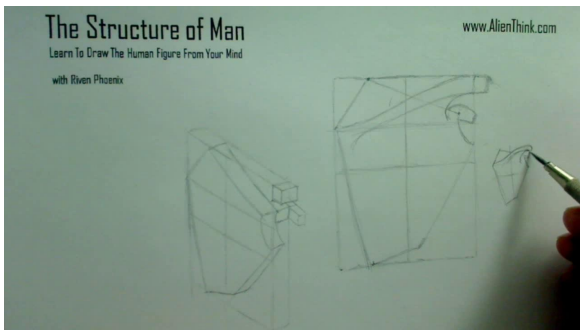
165		Right? So now notice where I put this.
166		This cube is on the line of this whole plank.
167		Right? So when you do that, what you need to know is that we know that this is going up
168		and this is really just going to be going inwards here.

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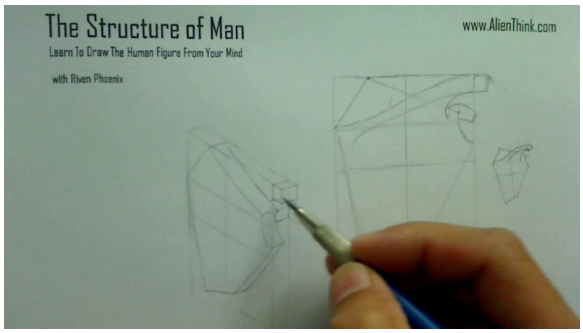
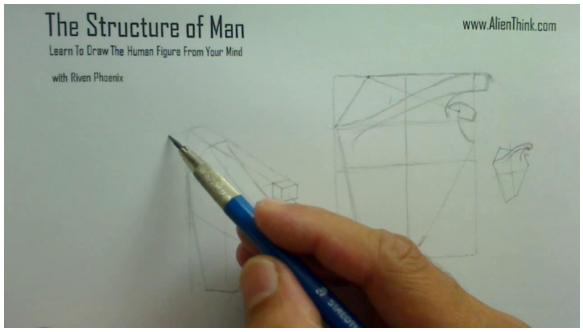
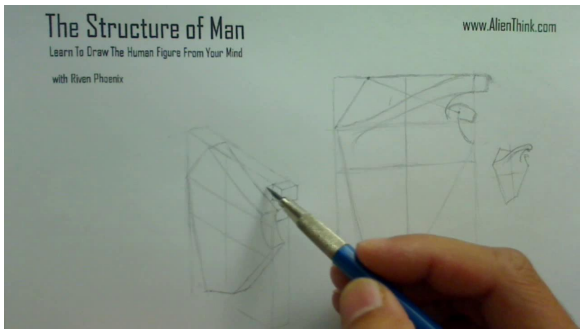
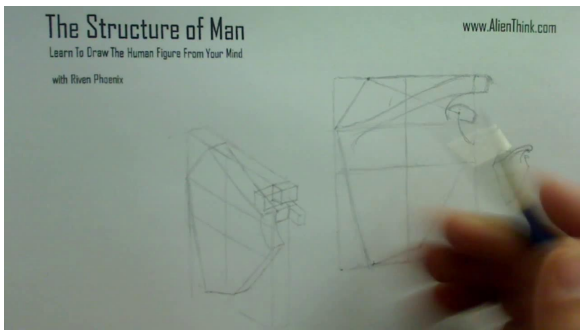
169		Right? So we can pull out like it's like I took another piece of plank and I put it here.
170		Right? It's like you're putting another piece of plank over here.
171		But really what you want to do is here I'm just going to elongate this cube here like this.
172		Right? So now if I erase some of these lines, you'll start to see what's happening here.

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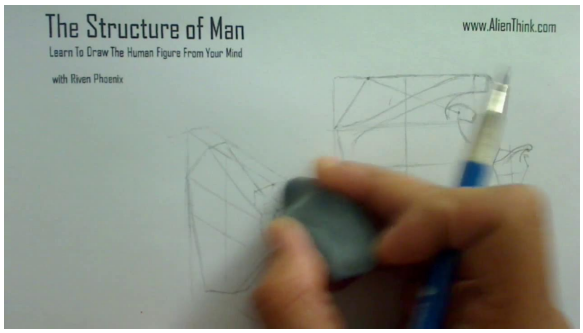
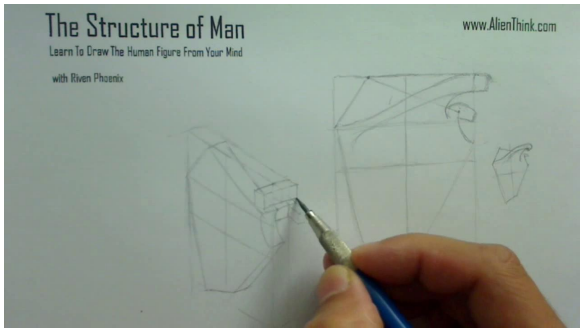
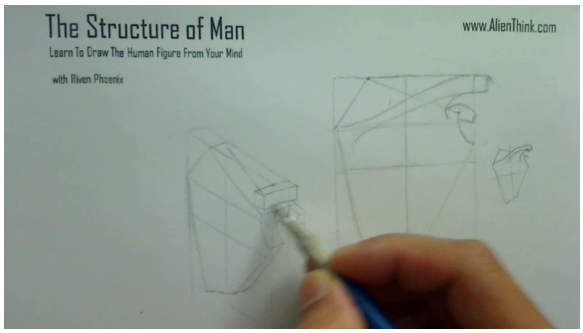
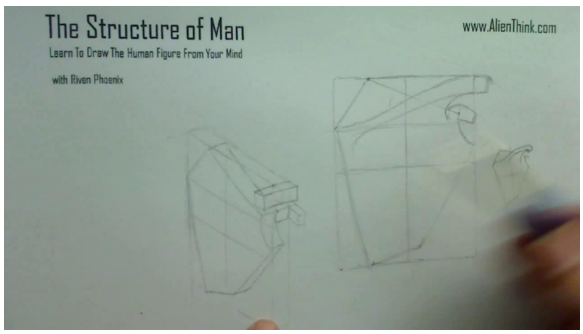
173		Right? So it's better to sometimes do these types of exercises where you look at things in basic shapes
174		to get the mind to start to understand some of these concepts.
175		So now just make sure that you understand that this is on one plane and this is now extruding out in this way.
176		Right? So we know that when it extrudes out over here, this thing is trying to go back over here just like this.

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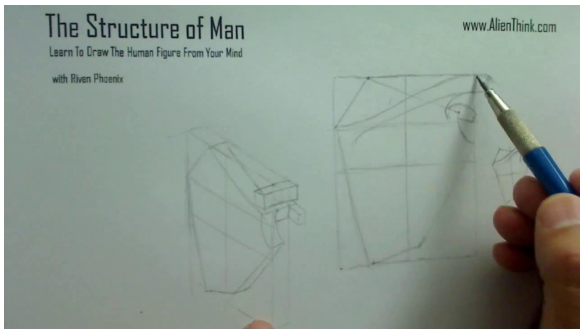
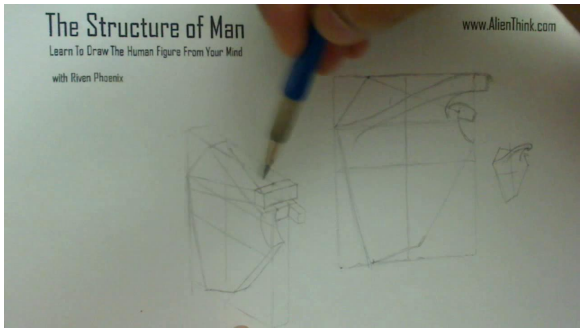
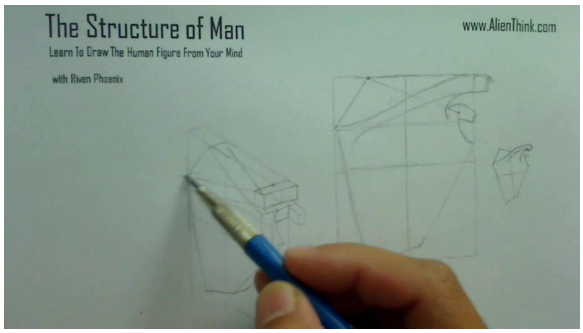
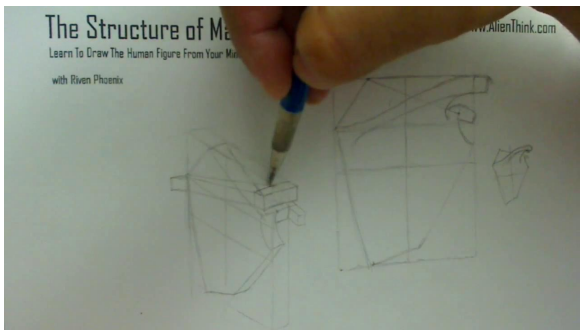
177		Right? So for this example, we'll just simplify and say that we're just going to put a piece over here or wood just like this.
178		So this means that this piece of wood is this thing is going to come all the way over here.
179		Right? It's like this. Over here, we're going to make this like this over here and then here I'm just going to bring it.
180		Right? So once I get that concept down here, I can just erase some of these lines again and just look at the concept again.

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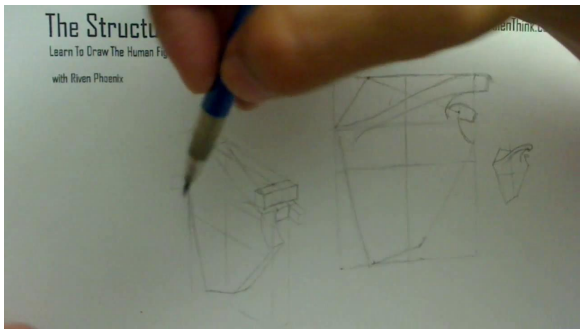
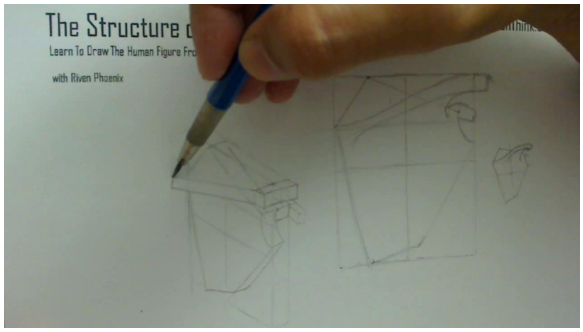
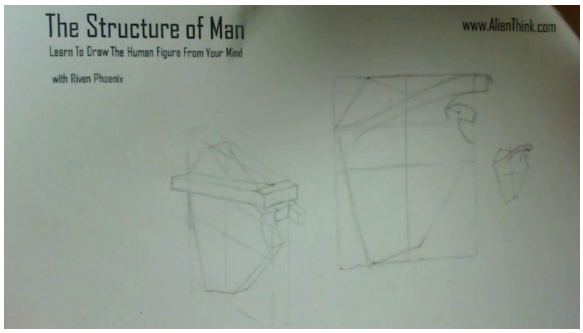
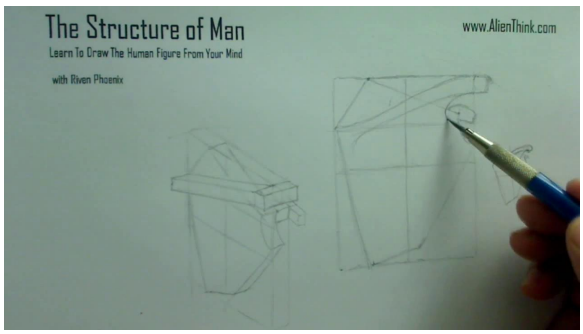
181		So it's going to be coming in this direction like this and it's going to come over here in this direction over here.
182		Right? And then this is just going to attach itself over here like this.
183		Okay? So now you're getting the idea what I'm getting at is that it's really this organic shape.
184		It goes like this and it's really just this, if we had to build this out of wood in very basic abstract shapes, we could do it this way.

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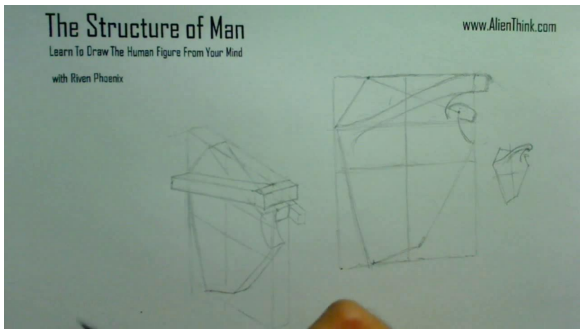
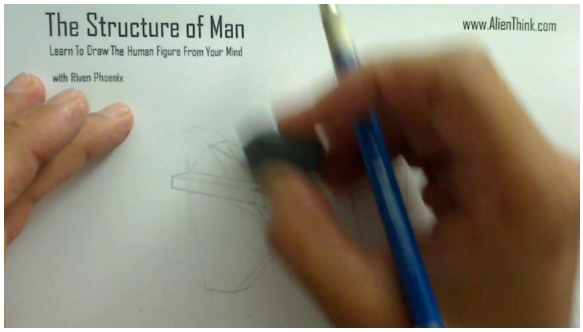
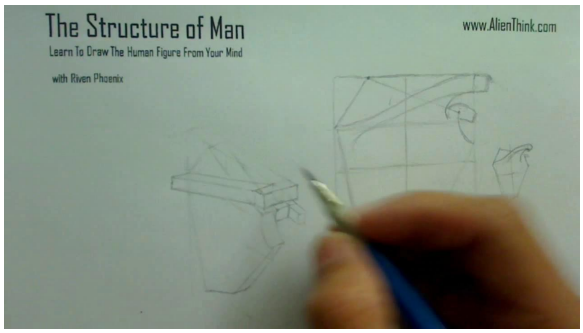
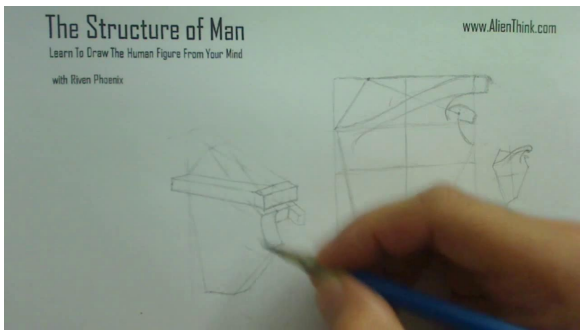
185		Right? So to finish this off, here I'm just going to just clean up these lines here so you can really see what I'm getting at here.
186		The idea should be very clear to you so you can start to understand the basic concepts of this.
187		Right? So here's, so here we can just clean up some of these lines here like this.
188		Make it go down over here and make it come in this direction.

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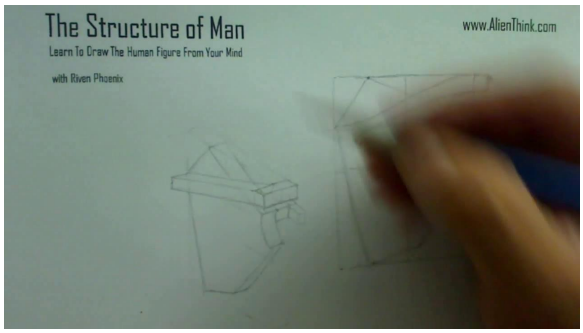
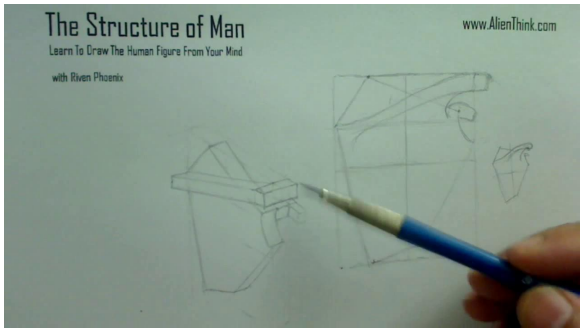
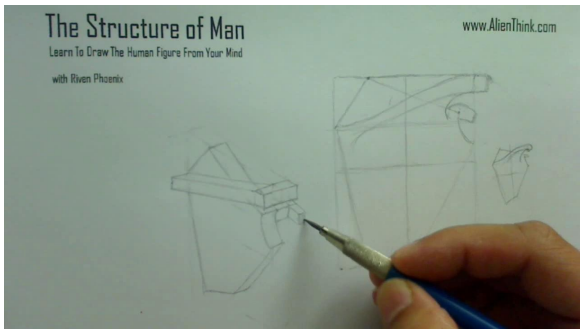
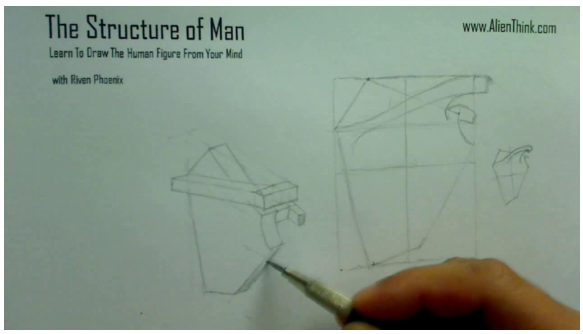
189		Right? So we could even shade this in to bring out some of the features.
190		So let's say if the light source is pointing from this direction, we know that on this side here, it's going to be a little dark over here.
191		When the light source comes on this, when it hits this side here, it's really not much light source going to be here.
192		So it's like this light source with some amphibian lights also surrounding it.

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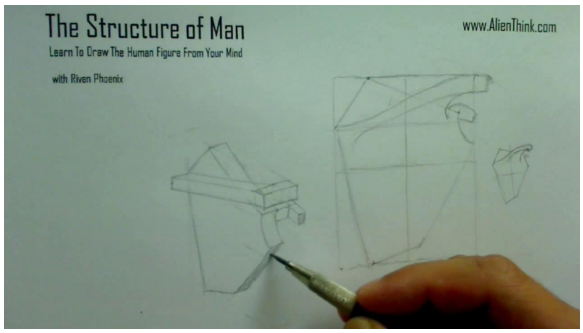
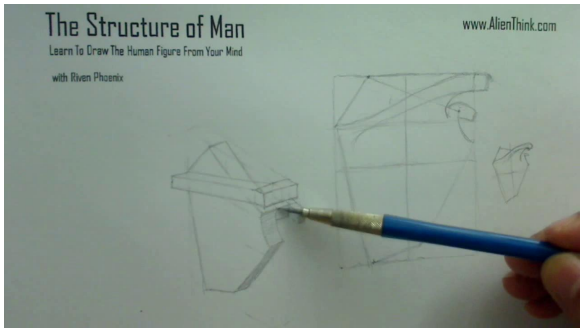
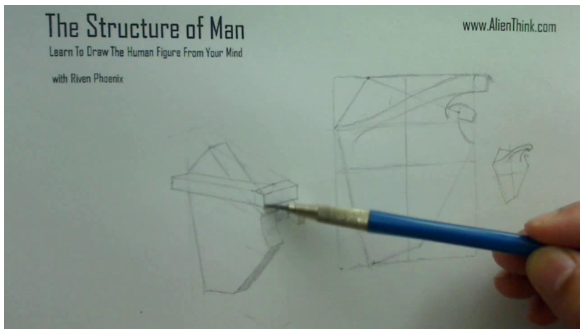
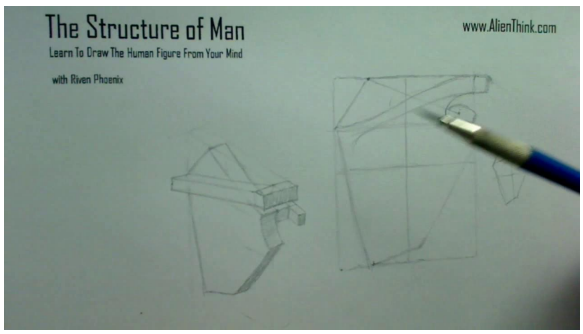
193		Right? So it's going to be like this and since it's pointing this direction, we're going to also just shade this in, try to bring out like the curvature of this here.
194		And make this a little more lighter over here and make this kind of light over here.
195		So here would be the same thing. I'm going to just darken this up like this.
196		Like so. Right? So here we could just give it a much more lighter tone over here.

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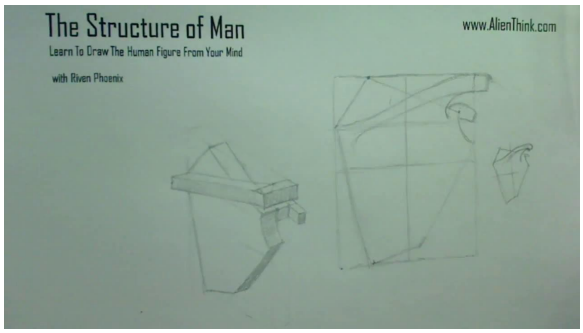
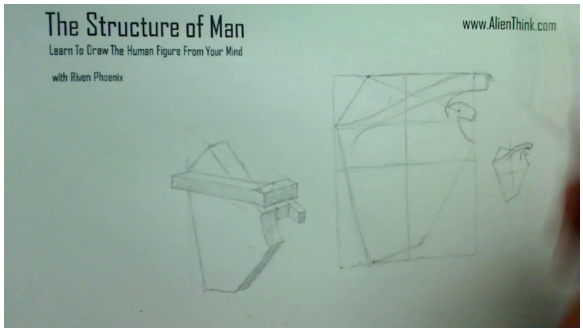
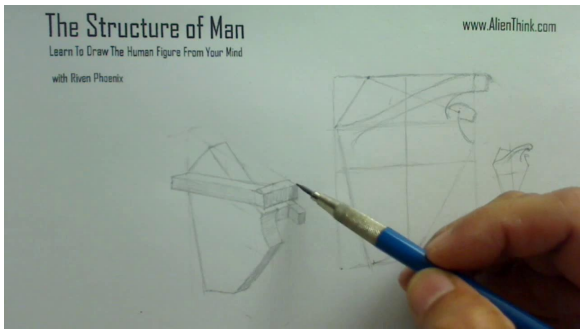
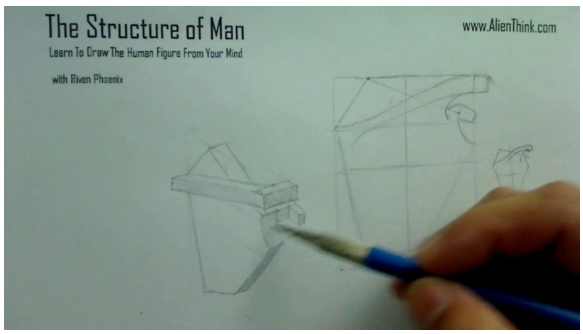
197		Like this. Right? So here you can see the basic concept of this now.
198		Right? So when you're drawing this out, now just keep that in mind that, okay, I remember in its most basic form that's what's going on.
199		And this is going to come like this and basically the ball joint for the upper arm that we get to that bone section is going to fit in here in this ball socket.
200		Right in here. Okay. So I'll see you in the next lesson. Thanks.

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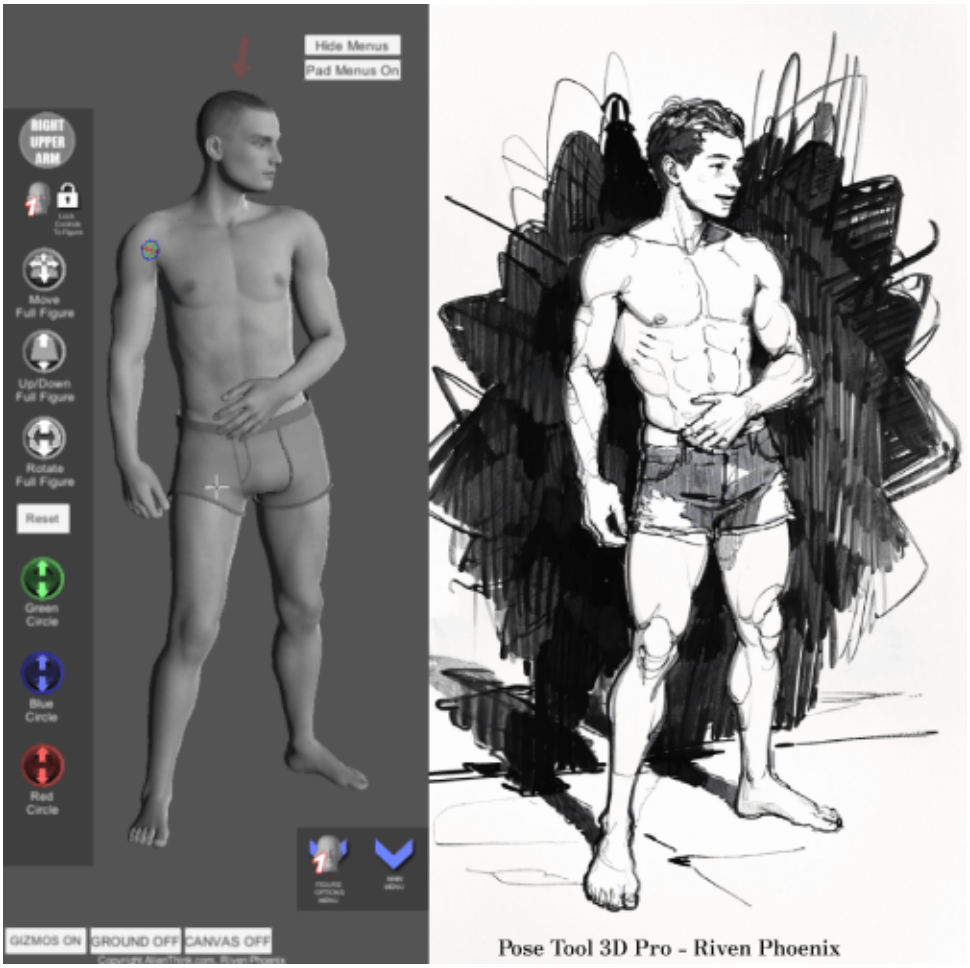

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